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OF THE

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BULLETIN
OF THE
BUREAU OF LABOR.

No. 65.

WASHINGTON.

JULY, 1906.

**WAGES AND HOURS OF LABOR IN MANUFACTURING INDUSTRIES,
1890 TO 1905.**

The present article shows the results of an investigation by the Bureau of Labor into wages and hours of labor in 1905 in the principal manufacturing and mechanical industries of the United States. The article immediately following in this Bulletin shows the results of an inquiry as to the retail prices of the principal food commodities in the same year. These investigations constitute the third of a series relating to these subjects. The results of the first investigation of wages and hours of labor were presented in the Nineteenth Annual Report, and covered the years 1890 to 1903. The results of the second were shown in Bulletin 59, and covered the year 1904.

In this article are given the average wages and hours of labor and the number of employees in identical establishments in both 1904 and 1905, which, taken in connection with figures from the Nineteenth Annual Report and Bulletin 59, herein reproduced, afford an opportunity to bring into comparison all years in the period from 1890 to 1905, inclusive. The data presented here, as well as in the preceding reports of the series, are not exhaustive for the United States, but it is believed that they are fairly representative of the industries investigated.

The results of this investigation show that in 1905 the average wages per hour in the principal manufacturing and mechanical industries of the country were 1.6 per cent higher than in 1904; that the average hours of labor per week remained the same as in 1904, and that 6.3 per cent more persons were employed in the establishments investigated.^(a) As there was no reduction in the average hours of labor per week, the average weekly earnings per employee were

^aAn explanation of these figures is given on pages 14 to 16.

1.6 per cent higher than in 1904. As there was an increase in the number of employees as well as in the weekly earnings per employee, there was a considerable increase in the weekly earnings of all employees, or, in other words, in the amount of the weekly pay roll. This increase was 8 per cent in the establishments investigated.

When the figures of this article relating to wages and hours of labor and those of the succeeding article relating to retail prices of food are brought together, it is seen that the retail prices of food, due weight being given to the quantity and cost of the different commodities consumed, were 0.6 per cent higher in 1905 than in 1904. As the average wages per hour increased more than the retail prices of food, the purchasing power of wages increased. In 1905 the purchasing power of both hourly and weekly wages was 1 per cent higher than in 1904; or, expressed in other words, an hour's wages in 1905 would purchase 1 per cent more food than an hour's wages in 1904.

The average wages per hour in 1905 were 18.9 per cent higher than the average for the ten-year period from 1890 to 1899, inclusive. The number of employees was 33.6 per cent greater, and the average hours of labor per week were 4.1 per cent lower. The average earnings per week in 1905 were 14 per cent higher than the average earnings per week during the ten years from 1890 to 1899. The aggregate weekly earnings of all employees, that is, the total amount of the pay rolls, were 52.3 per cent higher in 1905 than the average during the ten-year period named.

The retail price of the principal articles of food, weighted according to family consumption of the various articles, was 12.4 per cent higher in 1905 than was the average price for the ten years from 1890 to 1899. Compared with the average for the same ten-year period, the purchasing power of an hour's wages in 1905 was 5.8 per cent greater, and of a week's wages, 1.4 per cent greater, the increase in purchasing power of weekly wages being less than the increase in purchasing power of hourly wages because of the reduction of the hours of labor during the period.

The average wages per hour in 1905 were 21.5 per cent higher than in 1894, the year of lowest wages during the period covered, and weekly earnings were 16.7 per cent higher. The purchasing power of an hour's wages was greater in 1905 than in any other year covered by this investigation, being 7.7 per cent greater than in 1894, the year of lowest wages, and 1.3 per cent greater than in 1896, the year of lowest retail prices. The purchasing power of a week's wages in 1905 was 3.5 per cent greater than in 1894, but 2.7 per cent less than in 1896.

The figures above quoted, with those for other years, are presented in the tables on pages 14, 18, 20, and 21. These tables show in concise

form the general conclusions of the series of reports named relating to wages and hours of labor. The tables are accompanied by a full explanation of the data presented therein.

The following table shows the per cent of increase or decrease in wages per hour and in hours of labor per week in 1905 as compared with 1904 in the several industries covered by this report:

PER CENT OF INCREASE OR DECREASE IN WAGES PER HOUR AND IN HOURS OF LABOR PER WEEK IN 1905 AS COMPARED WITH 1904, BY INDUSTRIES.

Industry.	Wages per hour.		Hours per week.	
	Per cent of increase.	Per cent of decrease.	Per cent of increase.	Per cent of decrease.
Agricultural implements.....	1.6			0.2
Bakery, bread.....	2.0			1.2
Blacksmithing and horseshoeing.....	1.2			.3
Boots and shoes.....	1.1			.1
Brick.....	.9		0.2	
Building trades.....	1.9			.1
Candy.....	1.9			.2
Carpets.....	3.3		.1	
Carriages and wagons.....	2.5			1.4
Cars, steam railroad.....		1.1		.6
Clothing, factory product.....	1.1		(a)	(a)
Clothing, men's, custom work.....	2.6		(a)	(a)
Cotton goods.....	4.8		(a)	(a)
Dyeing, finishing, and printing textiles.....	.4		.2	
Electrical apparatus and supplies.....	.5			.1
Flour.....		.4	.3	
Foundry and machine shop.....	.1		.2	
Furniture.....	1.8			.2
Gas.....	.2		(a)	(a)
Glass.....	5.7			.2
Harness.....	.5			.6
Hats, fur.....	3.0			.6
Hosiery and knit goods.....	6.4		(a)	(a)
Iron and steel, bar.....	1.0		.2	
Iron and steel, Bessemer converting.....	7.5		.1	
Iron and steel, blast furnace.....	2.7		1.0	
Leather.....	.1		.4	
Liquors, malt.....	1.8			.2
Lumber.....	3.0		(a)	(a)
Marble and stone work.....	.3		.1	
Paper and wood pulp.....	.1		1.9	
Planing mill.....	1.6			.1
Pottery.....	1.6		.4	
Printing and publishing, book and job.....	1.4			.4
Printing and publishing, newspaper.....	1.8		.5	
Shipbuilding.....		.2	.4	
Silk goods.....	.7		.1	
Slaughtering and meat packing.....		1.0		.2
Streets and sewers, contract work.....	2.6			.4
Streets and sewers, municipal work.....		.7		.2
Tobacco, cigars.....	1.6			.3
Woolen and worsted goods.....	1.6		.4	
All industries.....	1.6		(a)	(a)

a No change.

The average wages and hours of labor are shown in Table I for each occupation and industry investigated, by geographical divisions. In Table IV average wages and hours of labor are shown for selected occupations by cities, and in Table V for selected occupations by States. In these tables may be seen the average of the actual rates paid and hours worked in 1904 and 1905, and for such information the reader is referred directly to the tables. Table II shows by percentages the relative wages and hours of labor from 1890 to

1905, by occupations, while Table III summarizes such facts for the respective industries covered. Tables II and III are fully explained, pages 10 and 13, and with the explanation there given the movement in wages and hours of labor in the several industries and occupations given can be readily traced.

That the reader may know the scope of this investigation and the methods pursued therein an extended explanation is given. In taking up the investigation of rates of wages and hours of labor the design was to cover thoroughly the principal distinctive occupations in the leading manufacturing and mechanical industries in the United States with a view to securing data that would be representative of conditions and show the trend of wages and hours of labor. The office and field force available for the prosecution of the work did not admit of the extension of the investigation to cover transportation, mining, agriculture, and the other great industrial groups. The work of securing data being so great, it was also deemed advisable to attempt to cover only those industries in which the wages paid in the United States in one year were \$10,000,000 or over as shown by the census of 1900.

The data presented in this article were secured in all cases by personal visits of special agents of the Bureau to the several establishments represented, and have been taken directly from the pay rolls and other records in existence and available for reference. In securing the data for 1905 for this Bulletin a few of the smaller establishments carried in Bulletin 59 were dropped and quite a number of important establishments added in order to secure as good a representation for the several industries as was obtainable.

An examination of Table I shows that all occupations usually pertaining to the various industries are not covered. As has been mentioned, this is in accordance with the plan adopted of securing data for only the important and distinctive occupations which are considered representative of each industry. This plan resulted in a great saving of time in the collection of the data, without materially affecting their representative character. Data concerning all occupations engaged in each industry would be desirable, but the work necessarily has been restricted. In outlining this investigation it was recognized that a comparison of wages and hours of labor for one year with those for another year could not be made for establishments as a whole, owing to the changes that so often take place in the relative number of persons employed in the several skilled and unskilled occupations engaged therein, and that comparisons, therefore, must be made within the limits of the occupation. All occupations pertaining to an industry are not always to be found in a single establishment; for this reason the number of
establishments for which data are reported is not the same for each

occupation in an industry. The following table shows the industries covered in this article, the number of different occupations covered for each industry, the number of establishments in each industry from which data were secured, and the number of employees in each industry covered by the data secured.

INDUSTRIES, NUMBER OF OCCUPATIONS, AND NUMBER OF ESTABLISHMENTS FROM WHICH REPORTS WERE SECURED, AND NUMBER OF EMPLOYEES COVERED, 1904 AND 1905.

Industry.	Number of occupations.	Number of establishments.	Number of employees.	
			1904.	1905.
Agricultural implements.....	8	23	5,809	6,673
Bakery, bread.....	4	147	2,223	2,324
Blacksmithing and horseshoeing.....	5	164	704	713
Boots and shoes.....	10	52	4,865	5,159
Brick.....	5	50	2,208	2,191
Building trades.....	19	1,497	39,228	40,930
Candy.....	2	37	1,586	1,671
Carpets.....	8	8	2,240	2,203
Carriages and wagons.....	8	71	4,021	4,094
Cars, steam railroad.....	17	46	27,256	32,083
Clothing, factory product.....	7	33	4,625	5,052
Clothing, men's, custom work.....	4	116	1,397	1,436
Cotton goods.....	6	30	15,115	14,996
Dyeing, finishing, and printing textiles.....	6	18	1,246	1,385
Electrical apparatus and supplies.....	5	8	1,839	2,512
Flour.....	5	46	3,156	3,347
Foundry and machine shop.....	10	268	22,193	24,798
Furniture.....	8	63	4,257	4,503
Gas.....	3	61	7,092	7,447
Glass.....	14	27	3,231	3,228
Harness.....	6	54	1,751	1,769
Hats, fur.....	14	16	4,055	4,320
Hosiery and knit goods.....	7	22	3,424	4,028
Iron and steel, bar.....	6	25	880	914
Iron and steel, Bessemer converting.....	6	16	287	291
Iron and steel, blast furnace.....	5	23	920	955
Leather.....	10	58	4,459	4,690
Liquors, malt.....	8	53	7,034	7,152
Lumber.....	12	69	8,927	9,633
Marble and stone work.....	12	202	4,743	4,625
Paper and wood pulp.....	16	30	4,540	4,622
Planing mill.....	9	113	6,276	6,609
Pottery.....	8	7	357	359
Printing and publishing, book and job.....	10	177	6,476	6,799
Printing and publishing, newspaper.....	4	151	5,289	5,651
Shipbuilding.....	17	40	14,360	15,181
Silk goods.....	12	18	6,901	7,569
Slaughtering and meat packing.....	15	12	11,965	12,029
Streets and sewers, contract work.....	1	121	13,100	12,729
Streets and sewers, municipal work.....	1	70	18,750	20,470
Tobacco, cigars.....	7	52	9,710	10,093
Woolen and worsted goods.....	9	27	6,592	6,776
Total.....	349	4,121	295,087	314,009

From the above table it is seen that from 4,121 establishments in the 42 industries, data were secured covering 349 occupations and 295,087 employees in 1904 and 314,009 employees in 1905. In 37 of the 349 occupations data were secured and are shown for both males and females.

The work of almost every establishment fluctuates during the year according to the demands of trade. This fluctuation affects the number of employees and, to a less extent, the wages and hours of labor. It was not possible for the force of the Bureau to secure data from the pay rolls of each establishment for an entire year so

that the true average for the year might be computed; the only thing practicable was to secure data from each establishment for that period of the year which most nearly represented the normal condition of the establishment during the year.

Employees are either time workers or piece workers. Time workers are persons paid by the hour, day, week, month, or year. The method of their payment is readily understood, and securing a statement of their wages is comparatively easy. The rate per piece paid to piece workers would convey but little information to the general reader, as all conditions under which the work is performed must be considered in connection with the piece rate. For this reason piece rates are not shown, but instead are shown earnings in a definite period of time. Data for piece workers were secured from those establishments only in which a record was kept of time worked or where the time worked to earn the wages paid could be determined approximately.

A peculiar condition is sometimes found in the work of piece workers. The speed of a piece worker is regulated to a great extent by the amount of work before him. If work is pressing, his speed is high and his earnings are at their maximum. If work is slack, he is inclined to reduce his speed, and thus his earnings per hour are reduced, although no change has been made in his piece rate. In taking data from the several establishments care was exercised, as has been stated, to copy figures from the pay roll that most nearly represented the average or normal conditions for the year.

All wages have been reduced to earnings per hour, in order that the data may be thoroughly and fairly comparable. The working day is an uncertain unit, as the time actually worked may be long or short—eight hours, nine hours, ten hours, etc.—and the week, month, or year is a still more indefinite unit of time. Hence all wages, however shown on the pay rolls, have been reduced to the one definite standard—the rate per hour. The average wages per hour shown are true averages—that is, the individual rates of wages per hour of the several employees are added and the total divided by the number of employees.

A statement of rates of wages is incomplete without an accompanying statement as to hours of labor, as both factors must be known to determine the earnings on full time per week, month, or year. The average hours of labor are given in this report in connection with the average rates of wages. The average hours of labor shown are true averages, computed in the same manner as the average wages per hour.

In order to meet every possible demand that might be made upon a statistical publication it would be necessary first to present all

data in minute detail and then summarize in as many ways as practicable. An ideal report on wages would show the data for each individual employee, followed by a summarization showing the true average rate, the median rate, the quartile and decile rates, the maximum and the minimum rates, the predominant rates, etc. Space, however, does not permit the publication in detail of the great mass of data on which this report is based nor all the summaries that with propriety might be made. The true average rate of wages of itself is not a full and complete summary of a series of rates, but it is believed that no other single expression or group of expressions is as comprehensive and as satisfactory for purposes of comparison as the true average rate when used within its proper sphere and based on accurate data.

An average rate of wages is almost meaningless unless limited to an occupation. For example, a statement that the average wages of employees in a shoe factory is a certain number of cents per hour means but little, as it includes both sexes and many occupations with their varying degrees of skill, but a statement that the average wages of male upper cutters in shoe factories were 27.95 cents per hour in 1905 conveys a definite idea. Since all data presented in this report are for well-defined occupations, it is believed that the average rate is properly used in this respect.

The average rate of wages does not always express the facts fully as to the individual employees, for a change in the proportionate number of employees at different rates will make a change in the average, although no individual person in employment has had a change made in his rate of wages. The average rate, however, does represent the occupation as a whole.

Another objection to the use of the true average rate is that it is always affected, and sometimes quite materially, by the improper inclusion or exclusion of certain rates, especially if such rates fall at either extreme of the series of rates. It is sometimes a matter of judgment whether or not some particular employee shall be classed within an occupation, and especially is this true in a nonunion shop, where the line of demarcation between the helper and the journeyman often is not clear. The inclusion or exclusion of an extremely high or low rate must always affect, to some extent, the true average rate, while in a majority of cases it would not affect the median or the predominant rate. With all of the details given, the careful reader might accept certain rates with allowance or might possibly detect an error. Inasmuch, however, as all of the field work for this report was done by experienced agents of the Bureau, it is believed that few errors exist in such work and that a true average may properly and safely be made of the data gathered.

In preparing to secure data for 1905 copies were made of the data for 1904. These copies were placed in the hands of the special agents of the Bureau, who visited the establishments and secured 1905 data, and whenever any doubt arose verified or, if necessary, revised the data for 1904. As heretofore stated, the agents were also instructed to secure data from a number of additional establishments, in order to secure a better representation for the several industries and localities covered. Where data were obtained from additional establishments, figures were taken for both 1904 and 1905. All data for the two years, 1904 and 1905, shown in this article, therefore, are from the same establishments, and may properly be compared. During the course of the field work it was also found that some of the establishments heretofore covered had gone out of business. With some establishments added and others discontinued it will be seen that the establishments from which data were secured for this Bulletin differ to some extent, and in some industries to a considerable extent, from the establishments shown in the Nineteenth Annual Report and in Bulletin 59.

With a change in the establishments reporting, some difference necessarily must be expected between the average hours of labor and average wages per hour shown for the year 1904 in Bulletin 59 and in this Bulletin. Two groups of establishments, even though a number of establishments are common to both groups, can not be expected to show exactly the same averages. Neither statement may be absolutely exact for the occupation, yet if each group embraces a considerable number of establishments the average rates found may be accepted as representing approximately the average rate in the occupation considered. The average based on the larger number of establishments probably would be the more nearly representative.

To secure the exact average rate of wages and hours of labor for the United States it would be necessary to take a complete wage census of the United States, and, as previously stated, such a task is so great as to be practically impossible.

To measure with exactness the movement in wages and hours of labor it would not be proper to compare the average for one group of establishments for 1904 with the average for a different group of establishments for 1905, nor in practically the same establishments if any change or substitution has been made. Comparison can be made accurately only when the data compared are obtained from the same establishments. As one of the principal objects of this series of reports is to measure the trend from year to year as accurately as possible, increases and decreases from year to year are computed only on data taken from the same establishments.

The tabular matter of this article relating to wages and hours of labor is set forth in five general tables, and a number of short tables

shown in the text explaining and summarizing the general tables. The five general tables are entitled:

TABLE I. Average wages and hours of labor, 1904 and 1905, by occupations and geographical divisions.

TABLE II. Relative wages and hours of labor, 1890 to 1905, by occupations.

TABLE III. Relative wages and hours of labor, 1890 to 1905, by industries.

TABLE IV. Average wages and hours of labor, 1904 and 1905, in selected occupations, by cities.

TABLE V. Average wages and hours of labor, 1904 and 1905, in selected occupations, by States.

Table I.—Average wages and hours of labor, 1904 and 1905, by occupations and geographical divisions (pp. 22 to 58). This table presents the data secured for each occupation in each industry, by geographical divisions and for the United States. The classification of the States into geographical divisions is as follows:

North Atlantic States:

Connecticut.
Maine.
Massachusetts.
New Hampshire.
New Jersey.
New York.
Pennsylvania.
Rhode Island.

South Atlantic States:

Delaware.
District of Columbia.
Florida.
Georgia.
Maryland.
North Carolina.
South Carolina.
Virginia.
West Virginia.

North Central States:

Illinois.
Indiana.
Iowa.
Kansas.

North Central States—Concluded.

Michigan.
Minnesota.
Missouri.
Nebraska.
Ohio.
South Dakota.
Wisconsin.

South Central States:

Alabama.
Arkansas.
Kentucky.
Louisiana.
Mississippi.
Tennessee.
Texas.

Western States:

California.
Colorado.
Montana.
Oregon.
Utah.
Washington.

Were the figures shown in Table I not used to measure the trend from one year to another the decimals of the hour and of the cent might well be dropped from the table. But while a slight difference is not material in itself, so far as it affects a representative number, it is very material when indicating a trend or movement upward or downward in hours or wages. As stated before, the establishments that reported the data for 1904 shown in this Bulletin are the same

as those that reported the data for 1905; hence there is opportunity for an exact comparison between the number of employees, the hours of labor, and the wages per hour in 1904 and in 1905, and the figures may safely be used to indicate and measure the trend or movement upward or downward of employees, hours, and wages in the several occupations and localities covered.

In Table I (p. 22) the second column shows the number of establishments from which data were secured for both 1904 and 1905. The next two columns show the number of persons employed in 1904 and 1905, respectively, in the establishments from which data were secured. The two columns following show the average number of hours worked per week in each of the two years in these establishments, while the last two columns on the page show the average wages per hour in each of the two years covered. The averages shown are true arithmetical averages. They are obtained by finding the aggregate hours worked per week by all workers and the aggregate earnings per hour, and dividing these aggregates by the total number of persons considered.

An illustration will assist in explaining the table. The figures for bricklayers in the building trades are presented on page 25. Data for this occupation were secured for both 1904 and 1905 from 70 establishments in the North Atlantic States. In these establishments 1,923 persons were employed in 1904, and 1,782 persons in 1905, a decrease of 141 persons. The average hours of work per week of these employees were 45.86 in 1904 and 45.74 in 1905, a reduction of 0.12 hour per week. In 1904 the average wages per hour were \$0.5630 and in 1905 \$0.5796, showing in this occupation an increase in wages of \$0.0166 per hour in the North Atlantic States. Occupations followed by the words "not specified" include those persons who, on account of the nature of the work done could not be otherwise classified; for instance, a stonecutter, not specified, is one who cuts granite, soft stone, and often marble.

Table II.—Relative wages and hours of labor, 1890 to 1905, by occupations (pp. 59 to 125).—In Table I actual or concrete numbers only are shown, and such figures relate only to the two years 1904 and 1905. No attempt has been made to join the actual numbers expressing employees, hours, and wages for 1905 to the actual numbers for the period from 1890 to 1904, shown in the Nineteenth Annual Report and in Bulletin 59. On page 8 an explanation has been given why such a combination can not be made.

The figures presented in Table II are relative numbers or, in other words, a series of percentages. Relative numbers serve a double purpose. First, they present to the mind of the reader more clearly than the actual or concrete numbers the measure of difference between

the data for a series of years; and, second, by their use combinations are made possible that are not possible with concrete numbers.

In Table II all figures for the years from 1890 to 1903 are from the Nineteenth Annual Report and all figures for 1904 are from Bulletin 59; the figures for 1905 were obtained by computation. An illustration will best explain the method of computing relative numbers and the method of attaching one series of data to another by use of the relative number. Data were secured for the Nineteenth Annual Report from 212 establishments in the United States employing bricklayers in the building trades for each year from 1890 to 1903. The following table shows the number of persons employed each year and the relative numbers computed therefrom:

ACTUAL AND RELATIVE NUMBER OF BRICKLAYERS EMPLOYED IN 212 BUILDING ESTABLISHMENTS, 1890 TO 1903.

[From the Nineteenth Annual Report. Average number for 1890-1899 = 100.0.]

Year	Number of employees.	Relative number of employees.
Average 1890-1899.....	4,355	100.0
1890.....	4,422	101.5
1891.....	4,892	112.3
1892.....	4,967	114.1
1893.....	4,535	104.1
1894.....	4,055	93.1
1895.....	3,841	88.2
1896.....	3,968	91.8
1897.....	4,010	92.1
1898.....	4,150	95.3
1899.....	4,675	107.3
1900.....	4,576	105.1
1901.....	5,142	118.1
1902.....	4,781	109.8
1903.....	5,062	116.2

The average number of persons employed for the ten years from 1890 to 1899 was first computed. This average number, 4,355, was adopted as a base or standard for comparison. All comparisons might be made with 1890 or any other year, but owing to the fact that the conditions in any one year might have been abnormal it was determined to take as a base for comparison, or 100.0, not any one year, but the average for the ten years 1890 to 1899. The number of employees in the 212 establishments in 1890 was 4,422, which was found by computation to be 101.5 per cent of 4,355, the base number. The relative number of employees then was 101.5 in 1890. The relative number was computed in like manner for each succeeding year. In looking down the two columns the reader will see that the relative numbers convey a clearer idea of the measure of change in the number of employees from year to year in the establishments reporting than do the actual numbers themselves.

Data for bricklayers were secured for Bulletin 59 from 229 establishments for 1903 and 1904. As these establishments differed to

some extent from those shown for the years 1890 to 1903 in the Nineteenth Annual Report, direct comparison can not properly be made between the number of employees in 1904 shown in Bulletin 59 and the number in 1903 reported from the 212 establishments in the Nineteenth Annual Report. For the establishments covered in Bulletin 59, however, comparison could be made between the number of persons employed in the two years as shown in Table I of that report. In the 229 establishments 4,853 bricklayers were employed in 1903 and 4,644 in 1904. The number employed in 1904 is 95.69 per cent of the number employed in 1903. As shown in the above text table, the relative number of employees in 1903 was 116.2 as compared with the average number from 1890 to 1899, and, as just stated, the number of employees in 1904 was 95.69 per cent of the number in 1903, therefore the relative number in 1904 in the series from 1890 to 1904 would be 95.69 per cent of 116.2, or 111.2. It must not be understood that the number of employees (4,644) in 1904 in the 229 establishments is 111.2 per cent of the average number (4,355) for the ten-year period, 1890 to 1899, in the 212 establishments, but that the relative figures in the series from 1890 to 1904, calculated as above, show conditions in the occupation generally.

In the present investigation, data were secured for bricklayers from 209 establishments for both 1904 and 1905, the greater number of which establishments furnished the data for 1904, which were published in Bulletin 59. The number of employees reported by these 209 establishments was 4,341 for 1904 and 4,365 for 1905. Computing the relative number of employees for 1905 by applying the per cent of increase in 1905 over 1904 to the relative number for 1904, the relative number for 1905 is found to be 111.8.

A caution should be given here as to the use of relative numbers. The difference between the relative numbers in any two years does not represent the per cent of increase or decrease in the actual numbers. For example, the relative number of bricklayers in the building trades in 1890 was 101.5. The relative number in 1905 was 111.8. The difference in the relative numbers is 10.3, and this difference is 10.1 per cent of 101.5—that is, the number of bricklayers employed, so far as can be determined from the establishments covered, was 10.1 per cent greater in 1905 than in 1890.

In Table II the second column shows the relative number of employees each year from 1890 to 1905; the third, the relative hours of work per week in each year; and the fourth, the relative wages per hour. By referring again to the occupation of bricklayers in the building trades, as shown on page 65, it is seen that the relative wages per hour in this occupation increased from 98.4 in 1890 to 132.1 in 1905. If the per cent of increase is desired, it may be obtained by computation. Thus, 33.7, the difference between 98.4

and 132.1, is 34.2 per cent of 98.4, making an increase in the wages per hour of bricklayers between 1890 and 1905 of 34.2 per cent, as nearly as can be determined from the establishments that have been canvassed. Any other two years may be compared in like manner.

The few new occupations incorporated in this report can not have relative numbers shown for them, as no data were secured for them in the years adopted as the base period.

Table III.—Relative wages and hours of labor, 1890 to 1905, by industries (pp. 126 to 131).—The relative figures shown in Table II have been summarized so as to show conditions in each industry as a whole, and are presented in this report as Table III. This summary table shows the relative conditions in each year compared with the ten-year period, 1890–1899. In computing the relative numbers shown in Table III, the relative numbers for a year for all occupations of the industry were added and the sum divided by the number of occupations entering into the total. When both sexes were reported in an occupation, each sex was considered a separate occupation in this computation. A method somewhat different was pursued for 1904 and 1905 in the few industries in which occupations were added or discontinued. This method was to compute for employees, hours, and wages in each occupation the per cent which the figures of the current year were of the figures for the preceding year; the percentages for all the occupations in the industry were then added and the sum divided by the number of occupations. The index for the preceding year was then multiplied by this average percentage to determine the index or relative number for the year under consideration.

The table shows the trend of wages and hours of labor in the occupations of an industry taken as a whole. The average wages of all employees in an industry, irrespective of occupation, may differ to some extent, possibly, from the figures here shown, because of a change during the period in the proportionate number of employees in the several occupations. It is presumed that the work done in the occupations themselves has not changed materially. The table is intended to show changes as regards the same or like employees, rather than changes in which the establishment is considered as the unit.

Like Table II, Table III embraces three divisions, relating to the number of employees in the several years, the hours of work per week, and the wages per hour. The base on which the relative number is computed is the average for the ten-year period, 1890–1899. By reference to the table, it is seen that in 1890 the number of employees engaged in the agricultural implement industry was 86.2 per cent of the average number employed during the ten-year period, 1890 to 1899. In each of the years thereafter a greater number was employed than in 1890, the highest being in 1900, when 30.7 per cent

more persons were employed in the occupations and establishments covered in this industry than the average during the base period. In 1904 the number employed was 8.5 per cent more than the average number employed during the ten-year base period, and in 1905, 23.7 per cent more. With this explanation, the other columns of the table relating to hours per week and wages per hour will be readily understood.

In the short table immediately following, the facts relating to the several industries have been combined to form a general index of all industries:

COURSE OF WAGES AND HOURS OF LABOR 1890 TO 1905, WHEN WEIGHTED ACCORDING TO AGGREGATE WAGES PAID IN EACH INDUSTRY AS REPORTED BY THE CENSUS OF 1900.

[Relative numbers computed on basis of average for 1890-1899 = 100.0.]

Year.	Employees.		Hours per week.		Wages per hour.	
	Relative number.	Per cent of increase (+) or decrease (-) in 1905 as compared with year specified. (a)	Relative number.	Per cent of increase (+) or decrease (-) in 1905 as compared with year specified. (a)	Relative number.	Per cent of increase (+) or decrease (-) in 1905 as compared with year specified. (a)
1890.....	94.8	+40.9	100.7	-4.8	100.3	+18.5
1891.....	97.3	+37.3	100.5	-4.6	100.3	+18.5
1892.....	99.2	+34.7	100.5	-4.6	100.8	+18.0
1893.....	99.4	+34.4	100.3	-4.4	100.9	+17.8
1894.....	94.1	+42.0	99.8	-3.9	97.9	+21.5
1895.....	96.4	+38.6	100.1	-4.2	98.3	+21.0
1896.....	98.6	+35.5	99.8	-3.9	99.7	+19.3
1897.....	100.9	+32.4	99.6	-3.7	99.6	+19.4
1898.....	106.4	+25.6	99.7	-3.8	100.2	+18.7
1899.....	112.1	+19.2	99.2	-3.3	102.0	+16.6
1900.....	115.6	+15.6	98.7	-2.8	105.5	+12.7
1901.....	119.1	+12.2	98.1	-2.2	108.0	+10.1
1902.....	123.6	+8.1	97.3	-1.4	112.2	+6.0
1903.....	126.5	+5.6	96.6	— .7	116.3	+2.2
1904.....	125.7	+6.3	95.9	(b)	117.0	+1.6
1905.....	133.6	(a)	95.9	(a)	118.9	(a)

a The figures in this column give, opposite each year, the per cent of increase or decrease (indicated by + or -) which the 1905 figures show as compared with the year specified. Thus, opposite the year 1890, under employees, appears +40.9; this shows that the increase in the number of employees in 1905 as compared with 1890 was 40.9 per cent. Opposite 1890, under hours per week, appears -4.8; this shows that the decrease in the hours of labor per week in 1905 as compared with 1890 was 4.8 per cent. In like manner, under wages per hour, appears +18.5; this shows that the increase in the wages per hour in 1905 as compared with 1890 was 18.5 per cent. The figures opposite each year should be read in like manner. Opposite the year 1905, of course, no figures can be placed.

b No change.

The second column of the table shows the relative number of persons employed in all of the establishments investigated. This column probably does not show the full extent of the changes that have taken place in the industries of the United States during the period covered; it measures only the changes that have taken place in those establishments investigated. No figures are available showing the decrease in the number of employees caused by the shutting down of establishments for one or more years of the period, or by the permanent closing of establishments. Neither are there any figures showing the increase in the number of wageworkers caused by the opening of new establishments during these years. The figures in this table

relating to employees are of value, however, for they show the changes that have taken place in a large number of establishments, and undoubtedly indicate to some extent the changes that have taken place in the number of persons employed in all industries throughout the country. The table shows that the lowest number employed was in the year 1894, when employment was given to 94.1 per cent of the average number employed during the period from 1890 to 1899. So far as these establishments are concerned it is seen that the number of employees engaged therein gradually increased from 1894 until 1903, when 26.5 per cent more persons were employed than the average for the ten-year base period. In the year 1904 there was a decrease in the relative number of persons employed from 126.5 to 125.7. In 1905, however, the number of persons employed increased to 133.6 per cent of the average number employed from 1890 to 1899.

The next column shows the per cent of increase or decrease in the number of persons employed in 1905 as compared with each of the preceding years. Thus in 1905 there were employed 40.9 per cent more persons than in 1890, 42.0 per cent more than in 1894, and 6.3 per cent more than in 1904.

The next section of the table relates to the hours of labor. The relative number shown is a comparison of the hours of work per week in each year with the average hours worked per week during the ten-year period from 1890 to 1899. In 1890 the hours of work per week were 0.7 per cent more than the average hours worked during the ten-year base period, while in 1905 the hours of work were but 95.9 per cent of the average for the base period, or 4.1 per cent less than the average hours worked during the period from 1890 to 1899. The next column shows the per cent of increase or decrease of hours per week in 1905 when compared with each of the preceding years; thus in 1905 the hours of work were 4.8 per cent less than in 1890, 0.7 per cent less than in 1903, and the same as in 1904.

The third section of the table relates to the wages per hour paid in all of the industries covered by the report. In 1890 wages per hour were 0.3 per cent higher than the average wages per hour paid during the ten years from 1890 to 1899. The lowest point reached was in 1894, when wages per hour were 97.9 per cent of the average wages for the ten-year period, 1890 to 1899, or, in other words, 2.1 per cent lower than the average for the ten-year period. From 1894 the movement was upward for two years; in 1897 there was a slight decline. From 1897 there was an advance each year. In 1905 the average wages per hour were 118.9 per cent of the average for the base period, or, in other words, 18.9 per cent higher than the average wages per hour during the ten-year period 1890 to 1899. The

caution before given is here repeated. The per cent of change between one year and another is not the result of the subtraction of the two relative numbers. For example: The relative wages in all industries was 97.9 in 1894 and 118.9 in 1905; the difference between these relative numbers is 21.0. The increase in wages, however, from 1894 to 1905 was not 21.0 per cent. This difference, 21.0, is 21.5 per cent of 97.9, the number with which the comparison was made, making wages per hour in 1905 21.5 per cent higher than wages per hour in 1894. The column following the relative wages shows the per cent of increase or decrease in the average wages per hour in 1905 as compared with each of the preceding years. In this column it is seen that wages per hour in 1905 were 18.5 per cent higher than in 1890 and 1891, 18.0 per cent higher than in 1892, 21.5 per cent higher than in 1894, and 1.6 per cent higher than in 1904.

The relative numbers presented in the table on page 14 are shown in graphic form facing page 21, to which the reader is referred. In computing the figures for the table on page 14 each industry has been given a weight in proportion to the amount of wages paid therein, as shown by the United States census of 1900. This was deemed to be the most equitable method of making allowance for the greater or less importance of the several industries. The agricultural implement industry is an important industry, but by no means as great as the building industry of the country; therefore allowance for the importance of each industry was deemed necessary, and the most satisfactory method of weighting is believed to be the weighting in proportion to the wages paid in the several industries. In computing this weighted average the relative number or index for a year for each industry was multiplied by the wages paid in each industry, respectively, as shown by the United States census of 1900, expressed in the nearest \$100,000. The products were then added and the sum divided by the total wages paid in the industries represented. When the industry classification differed from that given by the United States census, the wages paid were estimated from the census figures. Street and sewer work, not reported as such by the census, was estimated from the best available data—that is, the wages paid in the District of Columbia. When two or more industries shown separately in this report were classed as one industry by the census, the relative numbers for the several industries were added year by year, and the totals divided by the number of subindustries to obtain a relative number for the general industry as shown by the census. The following table shows the relative weight accorded to each industry:

WEIGHT OF EACH INDUSTRY ACCORDING TO WAGES PAID.

[The weight given to each industry was determined by the wages paid, expressed in the nearest \$100,000, as shown by the United States census of 1900.]

Industry.	Weight.	Industry.	Weight.
Agricultural implements.....	225	Hats, fur.....	8 151
Bakery, bread.....	279	Hosiery and knit goods.....	244
Blacksmithing and horseshoeing.....	180	Iron and steel.....	1,308
Boots and shoes.....	592	Leather.....	226
Brick.....	219	Liquors, malt.....	258
Building trades.....	2,127	Lumber.....	1,046
Candy.....	109	Marble and stone work.....	287
Carpets.....	111	Paper and wood pulp.....	207
Carriages and wagons.....	298	Planing mill.....	327
Cars, steam railroad.....	1,194	Pottery.....	177
Clothing.....	794	Printing and publishing.....	842
Cotton goods.....	867	Shipbuilding.....	248
Dyeing, finishing, and printing textiles.....	127	Silk goods.....	210
Electrical apparatus and supplies.....	202	Slaughtering and meat packing.....	339
Flour.....	177	Streets and sewers.....	205
Foundry and machine shop.....	1,822	Tobacco, cigars, and cigarettes.....	409
Furniture.....	426	Woolen and worsted goods.....	448
Gas.....	124		
Glass.....	271	Total.....	17,273
Harness.....	107		

* Includes census figures for carpentering, masonry, plumbing, painting and paper hanging, and one-half of roofing, architectural iron, electrical construction, and tin-smithing.

* Includes census figures for wool hats.

* Estimated from wages paid in the District of Columbia.

In preparing the figures for the Nineteenth Annual Report, in order to ascertain the difference, if any, between the results obtained by the method adopted for the computation of the relative number or index for all industries and the results secured by other methods, the relative wages were computed by three other methods—first, by giving all occupations an equal weight; second, by giving each industry an equal weight; and, third, by giving each industry a weight in proportion to the number of employees engaged in the industry as shown by the census of 1900. The results obtained by the four different methods were very nearly the same, and any one of the three other methods might not improperly have been used.

As has been stated, several industries shown in the Nineteenth Annual Report have not been continued in Bulletin 59 nor in this Bulletin. In order to determine what difference there would be in the relative numbers for all industries if computed only from the industries retained, relative numbers for the 42 industries retained were computed for 1890 to 1903. It was found that the relative numbers for 1903 based on the 42 industries were practically the same as those based on the 67 industries—the variation being not more than one-tenth of 1 per cent for employees, for hours, or for wages.

In studying the several tables thus far presented, the reader should bear in mind that the wages shown are the average rates of wages per hour and the hours shown the average number of hours worked per week. A reduction in hours in any year, therefore, implies a reduction of weekly earnings, unless accompanied by a corresponding

increase in the rate of wages per hour. In order to show the changes in weekly earnings that have taken place from year to year during the period, in all industries as a whole, the following table has been prepared:

RELATIVE WEEKLY EARNINGS PER EMPLOYEE AND FOR ALL EMPLOYEES, 1890 TO 1905.

[Relative numbers computed on basis of average for 1890-1899=100.0.]

Year.	Weekly earnings per employee.		Weekly earnings of all employees.	
	Relative.	Per cent of increase (+) or decrease (-) in 1905 as compared with year specified.	Relative.	Per cent of increase (+) or decrease (-) in 1905 as compared with year specified.
1890.....	101.0	+12.9	95.7	+59.1
1891.....	100.8	+13.1	98.1	+55.2
1892.....	101.3	+12.5	100.5	+51.5
1893.....	101.2	+12.6	100.6	+51.4
1894.....	97.7	+16.7	91.9	+65.7
1895.....	98.4	+15.9	94.9	+60.5
1896.....	99.5	+14.6	98.1	+55.2
1897.....	99.2	+14.9	100.1	+52.1
1898.....	99.9	+14.1	106.3	+43.3
1899.....	101.2	+12.6	113.4	+34.3
1900.....	104.1	+9.5	120.3	+26.6
1901.....	105.9	+7.6	126.1	+20.8
1902.....	109.2	+4.4	135.0	+12.8
1903.....	112.3	+1.5	142.1	+7.2
1904.....	112.2	+1.6	141.0	+8.0
1905.....	114.0	.....	152.3	.....

The first section of the table relates to the weekly earnings of the individual employee. From this table it is seen that the weekly earnings per employee in 1890 were 1.0 per cent higher than the average weekly earnings for the ten-year period, 1890 to 1899. In 1894 the average weekly earnings were 2.3 per cent lower than the average for the ten-year period; in 1904 they were 12.2 per cent higher, and in 1905 they were 14.0 per cent higher. The next column shows that the weekly earnings per employee in 1905 were 12.9 per cent higher than in 1890, 13.1 per cent higher than in 1891, 16.7 per cent higher than in 1894, and 1.6 per cent higher than in 1904.

The second section of the table, relating to the aggregate weekly earnings of all employees engaged in the occupations covered, is of interest as indicating to some extent the change in the relative amount paid out in wages by the manufacturing and mechanical establishments of the country each year. While the figures given show that the increase has been very great, it is believed, for reasons previously stated, that they do not mark the extreme increase that would be shown were the figures available for the entire number of employees in all industries. Bearing in mind the previous statement that this report probably does not represent fully the change in the number of employees in the United States, the table shows that the weekly earnings of the employees engaged in the occupations covered

in the establishments reporting were, in 1890, 95.7 per cent of the average for the ten-year period from 1890 to 1899; in the year 1891 they were 98.1 per cent; in 1894 they were 91.9 per cent; in 1902 the relative figure was 135.0; in 1903 it was 142.1; in 1904 it dropped to 141.0, while in 1905 it was 152.3.

The next column of the table, comparing the last year of the period with each of the other years, indicates that in 1905 the aggregate weekly earnings of all employees were 59.1 per cent more than in the year 1890, 65.7 per cent more than in 1894, 7.2 per cent more than in 1903, and 8.0 per cent more than in 1904.

Table IV.—Average wages and hours of labor, 1904 and 1905, in selected occupations, by cities (pp. 132 to 158).—In this table the average wages and hours of labor of the most important general occupations are shown by cities. Like Table I, it comprises three divisions, relating to the number of employees covered, the average hours of work per week, and the average wages per hour, respectively. Cities in which data were secured from only one establishment have been omitted from this table to avoid identification, except for the occupation of laborers on streets and sewers, employed directly by the cities.

The first occupation shown in Table IV (p. 132) is horseshoers, floor men. The first line relates to wages in Albany, N. Y., and shows that in the two establishments from which data for horseshoers, floor men, were secured 5 men were employed in 1904 and 5 in 1905, the average hours per week were 54 in 1904 and 54 in 1905, and the average wages per hour, \$0.2778 in 1904 and \$0.2778 in 1905.

Table V.—Average wages and hours of labor, 1904 and 1905, in selected occupations, by States (pp. 158 to 170).—In this table the average wages and hours of labor of certain important occupations are shown by States. The data are not presented by cities, as in many instances the identity of the establishments furnishing the data might be disclosed by such classification. The form of this table is like that of Table IV, and needs no explanation.

The article immediately following the present one in this Bulletin is entitled "Retail prices of food, 1890 to 1905." That investigation covers the same period as does this investigation into wages and hours of labor, and the data have been summarized, as in this article, by the use of relative or index numbers. The base adopted for computing the relative numbers is the same in each case, namely, the average for the years 1890 to 1899.

In order that a comparative study may be made of the summary figures of these two articles they are here presented in parallel columns. The table immediately following shows the relative or index numbers taken from the two articles, and in addition two columns

computed therefrom showing the relative purchasing power of wages in the several years covered as measured by retail prices of food:

RELATIVE EMPLOYEES, HOURS PER WEEK, WAGES PER HOUR, WEEKLY EARNINGS PER EMPLOYEE AND OF ALL EMPLOYEES, RETAIL PRICES OF FOOD, AND PURCHASING POWER OF HOURLY WAGES AND OF WEEKLY EARNINGS PER EMPLOYEE, MEASURED BY RETAIL PRICES OF FOOD, 1890 TO 1905.

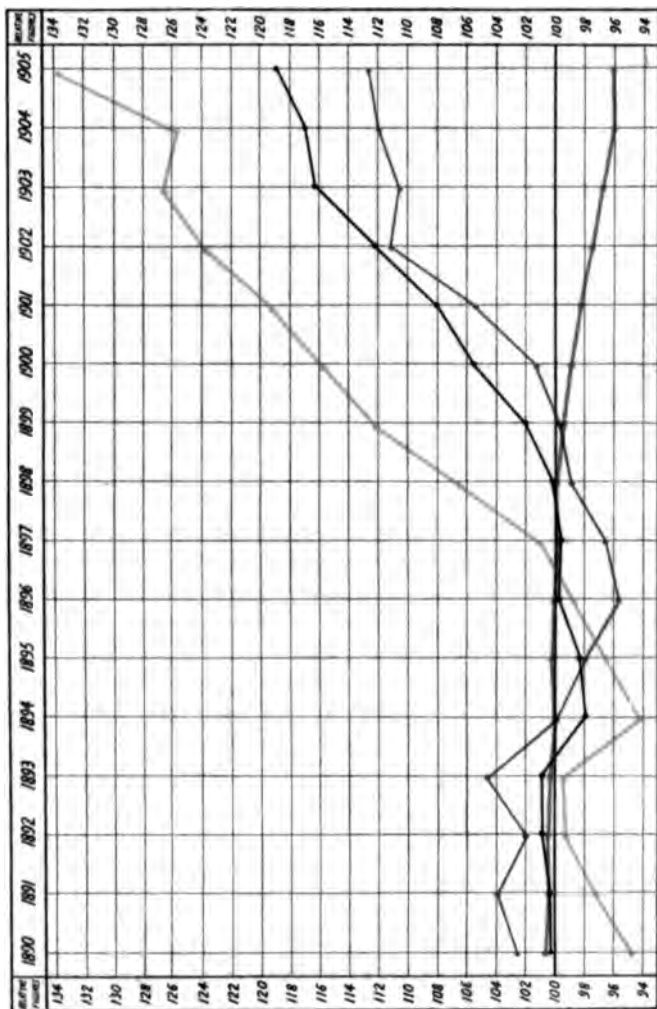
[Relative numbers computed on basis of average for 1890-1899=100.0.]

Year.	Employees.	Hours per week.	Wages per hour.	Weekly earnings per employee.	Weekly earnings of all employees.	Retail prices of food, weighted according to family consumption.	Purchasing power, measured by retail prices of food, of—	
							Hourly wages.	Weekly earnings per employee.
1890.....	94.8	100.7	100.3	101.0	95.7	102.4	97.9	98.6
1891.....	97.3	100.5	100.3	100.8	98.1	103.8	96.6	97.1
1892.....	99.2	100.5	100.8	101.3	100.5	101.9	98.9	99.4
1893.....	99.4	100.3	100.9	101.2	100.6	104.4	96.6	96.9
1894.....	94.1	99.8	97.9	97.7	91.9	99.7	98.2	98.0
1895.....	98.4	100.1	98.3	98.4	94.9	97.8	100.5	100.6
1896.....	98.6	99.8	99.7	99.5	98.1	95.5	104.4	104.2
1897.....	100.9	99.6	99.6	99.2	100.1	98.3	103.4	103.0
1898.....	106.4	99.7	100.2	99.9	106.3	98.7	101.5	101.2
1899.....	112.1	99.2	102.0	101.2	113.4	99.5	102.5	101.7
1900.....	115.6	98.7	105.5	104.1	120.3	101.1	104.4	103.0
1901.....	119.1	98.1	108.0	105.9	126.1	105.2	102.7	100.7
1902.....	123.6	97.3	112.2	109.2	135.0	110.9	101.2	98.5
1903.....	126.5	96.6	116.3	112.3	142.1	110.3	105.4	101.8
1904.....	125.7	95.9	117.0	112.2	141.0	111.7	104.7	100.4
1905.....	133.6	95.9	118.9	114.0	152.3	112.4	105.8	101.4

This table shows that in 1905, as compared with the average for the ten years from 1890 to 1899, 33.6 per cent more persons were employed, hours of labor per week had been reduced 4.1 per cent, wages per hour had increased 18.9 per cent, weekly earnings per employee had increased 14.0 per cent, weekly earnings of all persons employed had increased 52.3 per cent, retail prices of food had increased 12.4 per cent, the wages of one hour would purchase 5.8 per cent more food, and the earnings of a week would purchase 1.4 per cent more food.

WAGES
HOURS OF WORK
NUMBER OF EMPLOYEES
RELATIVE PRICES OF FOOD

RELATIVE FIGURES 1890 TO 1905 : UNITED STATES.
[BASED ON 1890 TO 1905 INDEX]



The next table shows the per cent of increase or decrease in the several items in 1905 as compared with each preceding year:

PER CENT OF INCREASE (+) OR DECREASE (−) IN 1905, AS COMPARED WITH PREVIOUS YEARS, IN EMPLOYEES, HOURS PER WEEK, WAGES PER HOUR, WEEKLY EARNINGS PER EMPLOYEE AND OF ALL EMPLOYEES, RETAIL PRICES OF FOOD, AND PURCHASING POWER OF HOURLY WAGES AND OF WEEKLY EARNINGS PER EMPLOYEE, MEASURED BY RETAIL PRICES OF FOOD, 1890 TO 1905.

Year.	Per cent of increase (+) or decrease (−) in 1905 as compared with previous years.							
	Employees.	Hours per week.	Wages per hour.	Weekly earnings per employee.	Weekly earnings of all employees.	Retail prices of food, weighted according to family consumption.	Purchasing power, measured by retail prices of food, of—	
							Hourly wages.	Weekly earnings per employee.
Average 1890-1899...	+33.6	−4.1	+18.9	+14.0	+52.3	+12.4	+5.8	+1.4
1890.....	+40.9	−4.8	+18.5	+12.9	+59.1	+9.8	+8.1	+2.8
1891.....	+37.3	−4.6	+18.5	+13.1	+55.2	+8.3	+9.5	+4.4
1892.....	+34.7	−4.6	+18.0	+12.5	+51.5	+10.3	+7.0	+2.0
1893.....	+34.4	−4.4	+17.8	+12.6	+51.4	+7.7	+9.5	+4.6
1894.....	+42.9	−3.9	+21.5	+16.7	+65.7	+12.7	+7.7	+3.5
1895.....	+38.6	−4.2	+21.0	+15.9	+60.5	+14.9	+5.3	+ .8
1896.....	+35.5	−3.9	+19.3	+14.6	+55.2	+17.7	+1.3	−2.7
1897.....	+32.4	−3.7	+19.4	+14.9	+52.1	+16.7	+2.3	−1.6
1898.....	+25.6	−3.8	+18.7	+14.1	+43.3	+13.9	+4.2	+ .2
1899.....	+19.2	−3.3	+16.6	+12.6	+34.3	+13.0	+3.2	− .3
1900.....	+15.6	−2.8	+12.7	+9.5	+26.6	+11.2	+1.3	−1.6
1901.....	+12.2	−2.2	+10.1	+7.6	+20.8	+6.8	+3.0	+ .7
1902.....	+8.1	−1.4	+6.0	+4.4	+12.8	+1.4	+4.5	+2.9
1903.....	+5.6	− .7	+2.2	+1.5	+7.2	+1.9	+ .4	− .4
1904.....	+6.3	(*)	+1.6	+1.6	+8.0	+ .6	+1.0	+1.0

* No change.

This table shows that in 1905, as compared with 1904, the total number of employees increased 6.3 per cent, the hours of labor remained unchanged, wages per hour increased 1.6 per cent, weekly earnings per employee increased 1.6 per cent, the total weekly earnings of all employees increased 8.0 per cent, retail prices of food increased 0.6 per cent, the wages of one hour would purchase 1.0 per cent more food, and the earnings per employee in a week would purchase 1.0 per cent more food.

The accompanying graphic table shows for the 16 years, 1890 to 1905, the relative number of employees, relative hours of work per week, relative wages per hour, and relative retail prices of food.

REPORT OF THE BUREAU OF LABOR.

WAGES AND HOURS OF LABOR, 1904 AND 1905, BY INDUSTRIES AND GEOGRAPHICAL DIVISIONS.

AGRICULTURAL IMPLEMENTS.

Number of estab- lish- ments.	Number of employees.		Average hours per week.		Average wages per hour.	
	1904.	1905.	1904.	1905.	1904.	1905.
4	88	91	50.94	50.93	\$0.2261	\$0.2587
16	410	485	50.06	50.98	.2744	.2811
2	27	28	50.89	50.89	.2682	.2954
2	17	17	54.00	54.00	.3314	.3200
24	542	621	50.08	50.02	.2680	.2766
4	232	190	50.93	50.92	.2147	.2173
13	460	555	58.72	58.75	.2438	.2575
2	28	27	50.75	50.67	.2358	.2563
19	729	781	50.15	50.08	.2343	.2472
4	80	83	50.90	50.89	.2128	.2170
11	209	356	58.78	58.80	.2068	.2048
2	35	33	50.71	50.79	.2816	.3033
17	423	472	50.09	50.06	.2779	.2817
4	78	80	50.86	50.88	.1993	.1945
15	341	450	58.44	58.45	.2265	.2344
2	36	33	50.89	50.89	.2340	.2510
2	8	8	54.00	54.00	.3038	.3161
23	463	577	58.72	58.67	.2239	.2309
4	300	382	50.96	50.96	.2344	.2150
14	945	1,122	58.43	57.68	.2634	.2675
1	7	7	60.00	60.00	.2500	.2607
2	29	34	54.00	54.00	.3146	.3034
21	1,347	1,545	58.76	58.17	.2565	.2553
4	314	305	50.91	50.91	.2401	.2397
13	1,177	1,479	58.37	58.34	.2606	.2480
2	50	43	50.84	50.81	.2575	.3127
2	20	13	54.00	54.00	.3583	.3718
21	1,561	1,840	58.67	58.60	.2576	.2490
3	54	62	50.93	50.92	.2357	.2350
16	547	624	58.71	58.36	.2382	.2441
2	32	32	50.91	50.91	.2384	.3211
2	4	6	54.00	54.00	.3234	.3063
23	637	724	58.84	58.53	.2415	.2472
4	17	16	50.76	50.75	.2620	.2506
16	85	90	58.54	58.48	.2915	.2901
1	3	4	60.00	60.00	.2583	.2688
1	2	3	54.00	54.00	.3473	.3704
22	107	113	58.69	58.50	.2869	.2871

BAKERY, BREAD.

32	95	104	61.33	60.27	\$0.2718	\$0.2757
15	30	27	60.00	60.56	.2623	.2640
35	129	129	50.22	58.12	.2827	.2894
16	37	39	65.24	63.97	.2497	.2506
10	14	14	50.86	50.86	.3008	.3082
108	305	313	60.80	59.85	.2782	.2840

TABLE II.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

BAKERY, BREAD—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Bakers, second hands, male:							
North Atlantic.....	32	169	165	60.43	59.59	\$0.2256	\$0.2315
South Atlantic.....	16	73	67	60.95	60.58	.2045	.2066
North Central.....	35	198	199	58.43	58.15	.2301	.2371
South Central.....	15	45	63	66.64	65.04	.1967	.2034
Western.....	10	21	20	60.29	59.90	.3064	.3122
United States.....	108	506	504	60.27	59.74	.2286	.2306
Bakers, third hands, male:							
North Atlantic.....	24	143	152	61.62	60.07	.1745	.1829
South Atlantic.....	10	32	36	61.50	60.00	.1772	.1915
North Central.....	22	175	183	57.58	57.32	.2302	.2341
South Central.....	10	39	39	65.26	64.67	.1396	.1426
Western.....	3	4	4	57.00	57.00	.2011	.2094
United States.....	69	393	414	60.12	59.27	.1964	.2027
Bakers, not specified, male:							
North Atlantic.....	17	644	670	63.45	62.89	.2448	.2469
South Atlantic.....	4	52	59	60.00	60.00	.2760	.2785
North Central.....	11	206	215	57.28	57.08	.2438	.2445
South Central.....	3	31	33	73.16	70.21	.1836	.1947
Western.....	7	86	116	60.00	60.00	.3046	.3046
United States.....	42	1,019	1,093	62.03	61.51	.2494	.2527

BLACKSMITHING AND HORSESHOEING.

Blacksmiths, male:							
North Atlantic.....	11	30	34	55.90	56.00	\$0.2759	\$0.2823
South Atlantic.....	3	10	8	58.20	57.75	.2583	.2479
North Central.....	9	23	23	59.39	59.39	.2584	.2560
South Central.....	3	9	8	58.89	58.88	.2717	.2739
Western.....	7	24	24	54.17	54.17	.3330	.3242
United States.....	33	96	97	56.82	56.73	.2838	.2831
Horseshoers, fitters, male:							
North Atlantic.....	23	48	48	53.88	53.25	.3410	.3555
South Atlantic.....	1	3	3	60.00	60.00	.2583	.2667
North Central.....	9	12	12	56.67	56.67	.3405	.3426
South Central.....	3	3	3	55.00	55.00	.3658	.3658
Western.....	5	8	9	53.75	53.67	.4026	.4112
United States.....	41	74	75	54.61	54.19	.3452	.3570
Horseshoers, floor men, male:							
North Atlantic.....	42	109	114	53.93	53.73	.3042	.3126
South Atlantic.....	17	41	38	56.15	55.87	.2510	.2580
North Central.....	42	108	112	54.91	54.62	.3123	.3204
South Central.....	18	34	35	55.70	54.74	.2582	.2655
Western.....	15	24	27	53.42	53.44	.3903	.3864
United States.....	134	316	326	54.71	54.37	.3020	.3099
Horseshoers, forgemen, male:							
North Atlantic.....	23	53	53	54.21	54.21	.3533	.3597
South Atlantic.....	16	29	27	55.69	55.56	.2829	.2902
North Central.....	35	70	70	55.10	54.81	.3590	.3626
South Central.....	15	26	25	56.50	55.24	.3117	.3207
Western.....	11	17	16	53.24	53.25	.4349	.4373
United States.....	100	195	191	54.97	54.68	.3465	.3523
Horseshoers, not specified, male:							
North Atlantic.....	2	3	3	52.00	52.00	.2917	.2917
North Central.....	6	7	7	58.00	58.00	.3101	.3101
South Central.....	4	9	10	56.22	56.50	.2694	.2628
Western.....	2	4	4	53.25	53.25	.4229	.4229
United States.....	14	23	24	55.70	55.83	.3114	.3099

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS.

AGRICULTURAL IMPLEMENTS.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Blacksmiths, male:							
North Atlantic.....	4	88	91	59.94	59.93	\$0.2261	\$0.2387
North Central.....	16	410	485	59.06	58.98	.2744	.2811
South Central.....	2	27	28	59.89	59.89	.2682	.2954
Western.....	2	17	17	54.00	54.00	.3314	.3200
United States.....	24	542	621	59.08	59.02	.2680	.2766
Fitters, male:							
North Atlantic.....	4	232	199	59.93	59.92	.2147	.2173
North Central.....	13	469	555	58.72	58.75	.2438	.2575
South Central.....	2	28	27	59.75	59.67	.2358	.2563
United States.....	19	729	781	59.15	59.08	.2343	.2472
Grinders, male:							
North Atlantic.....	4	89	83	59.90	59.89	.2128	.2170
North Central.....	11	299	356	58.78	58.80	.2908	.2948
South Central.....	2	35	33	59.71	59.79	.2816	.3033
United States.....	17	423	472	59.09	59.06	.2779	.2817
Machine woodworkers, male:							
North Atlantic.....	4	78	80	59.86	59.88	.1993	.1945
North Central.....	15	341	456	58.44	58.45	.2265	.2344
South Central.....	2	36	33	59.89	59.88	.2346	.2510
Western.....	2	8	8	54.00	54.00	.3038	.3161
United States.....	23	463	577	58.72	58.67	.2239	.2309
Machinists, male:							
North Atlantic.....	4	366	382	59.96	59.96	.2344	.2150
North Central.....	14	945	1,122	58.43	57.68	.2634	.2675
South Central.....	1	7	7	60.00	60.00	.2500	.2607
Western.....	2	29	34	54.00	54.00	.3146	.3034
United States.....	21	1,347	1,545	58.76	58.17	.2565	.2553
Molders, iron, male:							
North Atlantic.....	4	314	305	59.91	59.91	.2401	.2397
North Central.....	13	1,177	1,479	58.37	58.34	.2606	.2480
South Central.....	2	50	43	59.84	59.81	.2575	.3127
Western.....	2	20	13	54.00	54.00	.3583	.3718
United States.....	21	1,561	1,840	58.67	58.60	.2576	.2490
Painters, male:							
North Atlantic.....	3	54	62	59.93	59.92	.2357	.2350
North Central.....	16	547	624	58.71	58.36	.2382	.2441
South Central.....	2	32	32	59.91	59.91	.2984	.3211
Western.....	2	4	6	54.00	54.00	.3234	.3063
United States.....	23	637	724	58.84	58.53	.2415	.2472
Pattern makers, male:							
North Atlantic.....	4	17	16	59.76	59.75	.2620	.2596
North Central.....	16	85	90	58.54	58.48	.2915	.2901
South Central.....	1	3	4	60.00	60.00	.2583	.2688
Western.....	1	2	3	54.00	54.00	.3473	.3704
United States.....	22	107	113	58.69	58.59	.2869	.2871

BAKERY, BREAD.

Bakers, first hands, male:							
North Atlantic.....	32	95	104	61.33	60.27	\$0.2718	\$0.2757
South Atlantic.....	15	30	27	60.90	60.56	.2623	.2690
North Central.....	35	129	129	59.22	58.12	.2827	.2894
South Central.....	16	37	39	65.24	63.97	.2497	.2596
Western.....	10	14	14	59.86	59.86	.3908	.3932
United States.....	108	305	313	60.80	59.85	.2782	.2840

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

BAKERY, BREAD—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Bakers, second hands, male:							
North Atlantic.....	32	169	165	60.43	59.59	\$0.2256	\$0.2315
South Atlantic.....	16	73	67	60.95	60.58	.2045	.2066
North Central.....	35	198	199	58.43	58.15	.2391	.2371
South Central.....	15	45	53	66.64	65.04	.1967	.2034
Western.....	10	21	20	60.29	59.90	.3064	.3122
United States.....	108	506	504	60.27	59.74	.2286	.2306
Bakers, third hands, male:							
North Atlantic.....	24	143	152	61.62	60.07	.1745	.1829
South Atlantic.....	10	32	36	61.50	60.00	.1772	.1915
North Central.....	22	175	183	57.58	57.32	.2392	.2341
South Central.....	10	39	39	65.26	64.87	.1366	.1429
Western.....	3	4	4	57.00	57.00	.2011	.2094
United States.....	69	393	414	60.12	59.27	.1964	.2027
Bakers, not specified, male:							
North Atlantic.....	17	644	670	63.45	62.89	.2448	.2469
South Atlantic.....	4	52	59	60.00	60.00	.2700	.2785
North Central.....	11	206	215	57.28	57.08	.2438	.2445
South Central.....	3	31	33	73.16	70.21	.1836	.1947
Western.....	7	86	116	60.00	60.00	.3046	.3046
United States.....	42	1,019	1,093	62.03	61.51	.2494	.2527

BLACKSMITHING AND HORSESHOEING.

Blacksmiths, male:							
North Atlantic.....	11	30	34	55.90	56.00	\$0.2759	\$0.2823
South Atlantic.....	3	10	8	58.20	57.75	.2583	.2479
North Central.....	9	23	23	59.39	59.39	.2584	.2569
South Central.....	3	9	8	58.89	58.88	.2717	.2739
Western.....	7	24	24	54.17	54.17	.3330	.3242
United States.....	33	96	97	56.82	56.72	.2838	.2831
Horseshoers, fitters, male:							
North Atlantic.....	23	48	48	53.88	53.25	.3410	.3555
South Atlantic.....	1	3	3	60.00	60.00	.2583	.2667
North Central.....	9	12	12	56.67	56.67	.3465	.3426
South Central.....	3	3	3	55.00	55.00	.3658	.3658
Western.....	5	8	9	53.75	53.67	.4026	.4112
United States.....	41	74	75	54.61	54.19	.3432	.3579
Horseshoers, floor men, male:							
North Atlantic.....	42	109	114	53.93	53.73	.3043	.3126
South Atlantic.....	17	41	38	56.15	55.87	.2510	.2580
North Central.....	42	168	112	54.91	54.62	.3132	.3268
South Central.....	18	34	35	55.70	54.74	.2582	.2655
Western.....	15	24	27	53.42	53.44	.3903	.3864
United States.....	134	316	326	54.71	54.37	.3020	.3099
Horseshoers, forgers, male:							
North Atlantic.....	23	53	53	54.21	54.21	.3333	.3367
South Atlantic.....	10	29	27	55.69	55.56	.2929	.2902
North Central.....	35	70	70	55.19	54.81	.3390	.3356
South Central.....	15	26	25	56.30	55.24	.3117	.3267
Western.....	11	17	16	53.24	53.25	.4349	.4573
United States.....	106	195	191	54.97	54.68	.3465	.3523
Horseshoers, not specified, male:							
North Atlantic.....	2	3	3	52.60	52.60	.2917	.2917
South Atlantic.....	6	7	7	56.00	56.00	.3301	.3301
North Central.....	4	9	19	56.22	56.30	.3094	.3028
Western.....	2	4	4	52.25	52.25	.4229	.4229
United States.....	14	23	24	53.70	53.82	.3214	.3099

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

BUILDING TRADES—Continued.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Gas fitters, male:							
North Atlantic.....	18	67	70	46.54	46.54	\$0.4391	\$0.4594
South Atlantic.....	7	30	35	48.70	48.00	.3603	.3785
North Central.....	29	100	100	46.45	46.37	.4886	.4808
South Central.....	10	26	34	48.69	47.91	.4387	.4511
Western.....	13	34	27	46.24	46.30	.0015	.0004
United States.....	77	257	266	46.93	46.90	.4706	.4701
Hod carriers, male: (a)							
North Atlantic.....	83	2,063	2,027	46.11	46.10	.2971	.2973
South Atlantic.....	33	482	487	48.77	48.78	.2362	.2355
North Central.....	81	1,383	1,476	47.54	47.50	.2868	.3001
South Central.....	23	256	346	50.45	50.72	.2117	.2130
Western.....	35	325	312	45.05	45.21	.4172	.4152
United States.....	255	4,509	4,648	47.00	47.11	.2912	.2933
Inside wiremen, male:							
North Atlantic.....	26	444	480	46.76	46.59	.4163	.4165
South Atlantic.....	16	216	205	51.79	51.09	.3136	.3330
North Central.....	32	331	472	48.54	47.59	.3871	.4326
South Central.....	12	108	101	52.33	53.17	.3371	.3014
Western.....	8	102	113	48.00	48.00	.4461	.4357
United States.....	94	1,201	1,371	48.76	48.20	.3852	.4027
Laborers, male:							
North Atlantic.....	55	2,026	2,170	55.91	54.88	.1717	.1772
South Atlantic.....	33	1,337	1,763	57.15	57.11	.1300	.1446
North Central.....	59	2,222	2,375	52.58	53.17	.2296	.2279
South Central.....	26	435	545	55.94	55.46	.1504	.1516
Western.....	19	208	164	49.26	49.17	.2748	.2846
United States.....	192	6,228	7,017	54.77	54.77	.1866	.1867
Lathers, male:							
North Atlantic.....	14	190	185	44.58	44.54	.4424	.4756
South Atlantic.....	11	60	75	50.40	48.80	.3126	.3663
North Central.....	24	233	217	47.75	47.58	.4299	.4377
South Central.....	10	48	58	47.71	47.45	.3579	.4143
Western.....	8	133	107	45.38	45.79	.5768	.5658
United States.....	67	654	642	46.63	46.54	.4404	.4595
Painters, male:							
North Atlantic.....	65	1,636	1,603	47.62	47.65	.3593	.3614
South Atlantic.....	30	553	535	49.35	49.28	.3160	.3434
North Central.....	62	1,348	1,410	47.41	47.58	.3707	.3712
South Central.....	24	334	388	50.64	50.06	.3018	.3124
Western.....	25	370	368	47.21	47.25	.4380	.4343
United States.....	206	4,241	4,304	47.98	48.01	.3506	.3642
Paper hangers, male:							
North Atlantic.....	35	270	293	48.77	48.42	.3789	.4072
South Atlantic.....	17	154	162	50.22	49.22	.3466	.3845
North Central.....	35	254	282	49.19	48.98	.3715	.3815
South Central.....	12	81	96	49.43	49.27	.3477	.3689
Western.....	17	100	124	47.52	47.58	.4763	.4721
United States.....	116	868	957	49.06	48.70	.3803	.4004
Plasterers, male:							
North Atlantic.....	47	698	828	45.64	45.14	.5338	.5712
South Atlantic.....	25	277	314	50.05	49.58	.4538	.4961
North Central.....	51	613	618	46.41	46.47	.5341	.5612
South Central.....	23	118	155	49.34	49.38	.4872	.5141
Western.....	18	141	154	45.45	45.50	.6997	.6822
United States.....	164	1,847	2,069	46.78	46.56	.5375	.5608

a Includes men who mix mortar and wait on bricklayers, plasterers, and stone masons, whether or not a hod is used.

TABLE 1.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

BUILDING TRADES—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Plumbers, male:							
North Atlantic.....	60	584	618	47.27	47.02	\$0.4510	\$0.4719
South Atlantic.....	28	238	253	49.23	49.12	.4166	.4208
North Central.....	61	489	565	46.89	46.93	.4969	.5028
South Central.....	28	200	204	48.40	48.11	.4791	.4950
Western.....	21	195	173	46.23	46.18	.6058	.6080
United States.....	207	1,706	1,813	47.44	47.32	.4804	.4912
Roofers, gravel and tar, male:							
North Atlantic.....	22	293	303	49.95	50.21	.2842	.2810
South Atlantic.....	8	48	44	55.38	55.36	.2209	.2247
North Central.....	23	263	284	51.15	52.13	.3542	.3308
South Central.....	9	133	133	56.03	55.94	.1668	.1736
Western.....	10	84	96	48.80	48.13	.3741	.3818
United States.....	72	821	860	51.52	51.76	.2931	.2922
Roofers, slate and tile, male:							
North Atlantic.....	26	128	125	49.41	49.65	.3748	.3729
South Atlantic.....	11	59	64	50.64	50.14	.3765	.3917
North Central.....	21	90	86	48.54	48.76	.4289	.4068
South Central.....	9	49	47	48.98	48.51	.3654	.3820
Western.....	4	11	11	48.00	48.00	.4955	.5455
United States.....	71	337	333	49.28	49.30	.3921	.3930
Roofers, tin, male:							
North Atlantic.....	40	346	331	47.25	47.23	.3882	.3927
South Atlantic.....	23	157	169	50.33	50.31	.3141	.3358
North Central.....	35	297	299	49.79	49.87	.3329	.3435
South Central.....	15	109	118	49.81	49.13	.3378	.3533
Western.....	5	27	32	47.89	46.88	.4968	.5039
United States.....	118	936	949	48.89	48.83	.3555	.3659
Steam fitters, male:							
North Atlantic.....	37	325	318	47.59	47.53	.4365	.4431
South Atlantic.....	10	57	71	49.47	49.65	.4071	.4072
North Central.....	43	315	355	47.60	47.74	.4733	.4776
South Central.....	8	45	61	48.00	47.87	.4367	.4728
Western.....	14	47	50	45.60	45.88	.6162	.6220
United States.....	112	789	855	47.64	47.72	.4609	.4670
Stone masons, male:							
North Atlantic.....	41	345	351	48.62	48.02	.4428	.4572
South Atlantic.....	9	94	89	51.51	51.78	.4008	.4555
North Central.....	33	234	262	47.71	47.83	.5321	.5227
South Central.....	6	33	36	52.39	51.06	.4082	.4210
Western.....	13	169	130	44.47	44.65	.5853	.5897
United States.....	102	875	868	48.03	47.97	.4948	.4951
Stone setters, male:							
North Atlantic.....	15	65	71	46.43	46.85	.5312	.5248
South Atlantic.....	13	62	74	49.16	48.49	.5126	.5627
North Central.....	18	57	65	47.56	47.43	.5127	.5231
South Central.....	8	21	26	49.29	49.46	.4921	.5025
Western.....	3	24	10	45.50	45.20	.5469	.5688
United States.....	57	229	246	47.62	47.70	.5196	.5332
Structural iron workers, male: (a)							
North Atlantic.....	19	895	703	46.94	45.67	.4919	.5165
South Atlantic.....	6	115	92	52.12	50.74	.3871	.4169
North Central.....	22	645	753	52.31	52.32	.4078	.3959
South Central.....	5	74	67	57.27	55.35	.2362	.2732
Western.....	7	102	116	52.12	51.74	.3814	.3895
United States.....	59	1,821	1,731	49.86	49.61	.4392	.4402

(a) Work both on buildings and bridges.

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

CANDY.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Candy makers, male:							
North Atlantic.....	13	231	246	56.91	56.82	\$0.2380	\$0.2439
South Atlantic.....	3	59	60	59.75	59.73	.2250	.2377
North Central.....	12	363	382	59.12	59.95	.2274	.2286
South Central.....	5	17	18	56.82	57.00	.2688	.2745
Western.....	4	17	16	54.24	54.06	.3322	.3681
United States.....	37	687	722	58.68	58.69	.2347	.2388
Dippers, female:							
North Atlantic.....	10	307	324	54.48	54.37	.1068	.1164
South Atlantic.....	3	31	33	59.81	59.76	.0857	.0902
North Central.....	11	507	531	58.52	59.13	.0905	.0887
South Central.....	5	15	22	59.20	59.45	.0758	.0711
Western.....	4	39	39	54.33	54.36	.1408	.1370
United States.....	33	899	949	57.58	57.34	.0978	.0998

CARPETS.

Burlers, female:							
North Atlantic.....	8	181	174	58.91	58.86	\$0.1275	\$0.1361
Dyers, male:							
North Atlantic.....	6	213	208	58.56	58.57	.1515	.1541
Loom fixers, male:							
North Atlantic.....	8	89	84	58.69	58.73	.2651	.2710
Spoolers, female:							
North Atlantic.....	8	129	133	58.64	58.62	.1158	.1181
Twisters, female:							
North Atlantic.....	7	156	156	58.48	58.47	.1095	.1094
Weavers, Brussels and Wilton, male:							
North Atlantic.....	3	364	382	58.33	58.31	.2682	.2895
Weavers, Brussels and Wilton, female:							
North Atlantic.....	2	167	171	58.00	58.00	.1603	.1640
Weavers, Ingrain, male:							
North Atlantic.....	5	158	153	57.99	58.31	.1829	.1858
Weavers, Ingrain, female:							
North Atlantic.....	6	474	437	58.76	58.89	.1395	.1519
Winders, female:							
North Atlantic.....	7	309	305	58.14	58.29	.1160	.1200

CARRIAGES AND WAGONS.

Blacksmiths, male:							
North Atlantic.....	24	188	177	56.77	55.59	\$0.2796	\$0.2902
South Atlantic.....	8	32	30	59.50	59.53	.2219	.2277
North Central.....	28	318	340	58.43	58.35	.2557	.2608
South Central.....	6	27	31	59.56	57.87	.2345	.2492
United States.....	66	565	578	57.99	57.54	.2607	.2675
Body makers, carriage, male:							
North Atlantic.....	14	178	218	58.73	54.93	.2638	.2969
South Atlantic.....	2	7	6	60.00	60.00	.2667	.2611
North Central.....	19	183	205	58.26	58.29	.2404	.2457
South Central.....	2	21	27	60.00	60.00	.1747	.1789
United States.....	37	389	456	58.60	56.81	.2481	.2664
Body makers, not specified, male:							
North Atlantic.....	9	72	76	57.44	56.58	.2832	.2966
South Atlantic.....	3	10	11	58.80	58.55	.2377	.2433
North Central.....	6	80	69	58.64	58.48	.2102	.2095
United States.....	18	162	156	58.12	57.56	.2444	.2543

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

CARRIAGES AND WAGONS—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Ironers, male:							
North Atlantic.....	10	161	172	58.10	55.03	\$0.2317	\$0.2489
South Atlantic.....	4	23	26	58.87	58.77	.1722	.1748
North Central.....	14	147	144	58.20	58.22	.2085	.2082
South Central.....	2	22	23	58.91	54.00	.2039	.2012
United States.....	30	353	365	58.24	56.49	.2169	.2246
Machine woodworkers, male:							
North Atlantic.....	8	55	62	59.18	58.79	.2260	.2275
South Atlantic.....	2	11	9	59.82	59.78	.2180	.2397
North Central.....	17	371	387	57.68	57.79	.1892	.1900
South Central.....	2	42	38	60.00	55.58	.1664	.1710
United States.....	29	479	496	58.11	57.78	.1921	.1941
Painters, male:							
North Atlantic.....	26	408	414	56.91	53.66	.2441	.2533
South Atlantic.....	8	53	51	59.58	59.57	.2049	.1978
North Central.....	29	967	925	58.17	58.41	.2381	.2379
South Central.....	6	59	60	59.80	58.20	.2216	.2292
United States.....	69	1,487	1,450	57.94	57.66	.2379	.2405
Trimmers, carriage, male:							
North Atlantic.....	23	155	161	57.55	56.22	.2550	.2706
South Atlantic.....	7	23	23	60.00	60.00	.2157	.2080
North Central.....	26	247	230	58.41	58.60	.2579	.2662
South Central.....	4	17	18	60.00	60.00	.2777	.2577
United States.....	60	442	432	58.25	57.85	.2555	.2643
Woodworkers, male: (a)							
North Atlantic.....	12	48	51	56.42	56.24	.2621	.2613
South Atlantic.....	4	7	7	59.14	59.14	.2074	.2145
North Central.....	10	62	69	58.58	58.74	.2101	.1993
South Central.....	5	27	34	59.56	55.76	.1968	.1921
United States.....	31	144	161	58.07	57.34	.2248	.2181

CARS, STEAM RAILROAD.

Blacksmiths, male:							
North Atlantic.....	6	241	295	56.26	56.03	\$0.3437	\$0.3146
South Atlantic.....	6	158	165	58.17	56.67	.2983	.2728
North Central.....	22	473	554	55.89	55.52	.3076	.2935
South Central.....	7	156	158	59.83	59.83	.2915	.3017
Western.....	4	211	161	54.00	54.00	.3397	.3446
United States.....	45	1,239	1,333	56.43	56.10	.3131	.3028
Boiler makers, male:							
North Atlantic.....	3	168	166	55.45	55.78	.2962	.3238
South Atlantic.....	4	98	116	59.80	57.07	.2534	.2565
North Central.....	17	383	392	56.16	55.14	.3222	.3238
South Central.....	6	160	173	60.13	59.83	.2943	.3019
Western.....	3	176	197	54.00	54.00	.3677	.3677
United States.....	33	985	1,044	56.67	56.02	.3145	.3210
Brass finishers, male:							
North Atlantic.....	2	15	14	53.40	52.14	.2398	.2328
North Central.....	6	146	168	54.74	54.48	.3406	.2929
United States.....	8	161	182	54.61	54.30	.3312	.2983

(a) Work with hand tools and are often called wheelwrights.

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

CARS, STEAM RAILROAD—Continued.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Cabinetmakers, male:							
North Atlantic.....	3	216	215	54.51	54.26	\$0.3701	\$0.3236
South Atlantic.....	4	72	91	56.42	55.00	.2532	.2448
North Central.....	11	911	531	54.68	54.94	.3273	.2983
South Central.....	2	31	31	60.00	60.00	.2609	.2658
Western.....	1	22	22	54.00	54.00	.3216	.3170
United States.....	21	1,252	890	54.87	54.94	.3287	.2983
Carpenters, male:							
North Atlantic.....	6	767	898	55.60	55.03	.2440	.2580
South Atlantic.....	7	462	594	57.11	57.16	.2306	.2219
North Central.....	22	2,521	3,400	55.97	55.94	.2661	.2743
South Central.....	7	545	757	60.15	59.51	.2264	.2177
Western.....	4	320	305	54.00	54.00	.2713	.2723
United States.....	46	4,615	5,954	56.40	56.28	.2547	.2593
Car repairers, male:							
North Atlantic.....	2	233	233	53.42	53.39	.2231	.2248
South Atlantic.....	1	218	165	60.00	60.00	.2216	.2216
North Central.....	11	1,021	1,210	56.17	56.53	.2064	.2046
South Central.....	4	506	530	59.65	59.65	.2246	.2247
United States.....	18	1,978	2,138	57.16	57.23	.2147	.2131
Coppersmiths, male:							
North Atlantic.....	3	13	16	54.54	54.63	.3247	.3232
South Atlantic.....	2	4	4	59.50	59.50	.2725	.3205
North Central.....	9	17	13	55.88	55.85	.2962	.2936
South Central.....	4	10	13	59.56	55.85	.3080	.3196
United States.....	18	50	46	57.00	55.74	.3055	.3136
Laborers, male:							
North Atlantic.....	6	1,405	1,929	55.52	55.72	.1406	.1390
South Atlantic.....	6	601	1,233	58.36	56.05	.1354	.1436
North Central.....	19	2,831	4,538	54.97	55.14	.1584	.1629
South Central.....	7	1,798	1,741	60.85	60.30	.1403	.1429
Western.....	4	713	624	54.00	54.00	.1931	.1913
United States.....	42	7,348	10,065	56.70	56.18	.1521	.1542
Machine woodworkers, male:							
North Atlantic.....	6	158	149	55.58	54.87	.2403	.2418
South Atlantic.....	6	121	126	55.60	55.92	.2463	.2511
North Central.....	19	559	628	55.82	56.19	.2377	.2351
South Central.....	7	83	88	59.86	59.16	.2345	.2363
Western.....	2	6	7	51.00	51.43	.3308	.3236
United States.....	40	927	998	56.09	56.19	.2400	.2389
Machinists, male:							
North Atlantic.....	6	875	1,038	55.62	55.46	.3044	.3094
South Atlantic.....	7	590	694	58.94	56.81	.2644	.2738
North Central.....	21	2,058	2,259	55.38	54.27	.3105	.3087
South Central.....	7	504	541	60.00	59.03	.3115	.3111
Western.....	4	554	675	54.00	54.00	.3518	.3526
United States.....	45	4,581	5,207	56.23	55.31	.3085	.3101
Molders, brass, male:							
North Central.....	11	86	91	54.30	54.38	.3100	.3154
South Central.....	3	16	17	59.81	58.12	.2913	.2982
United States.....	14	102	108	55.17	54.97	.3071	.3127
Molders, iron, male:							
North Atlantic.....	3	125	133	60.00	60.00	.3231	.3438
South Atlantic.....	2	74	86	58.30	56.40	.2675	.2816
North Central.....	4	176	153	57.22	57.29	.3054	.2994
South Central.....	4	83	79	59.92	58.61	.2744	.2851
United States.....	13	458	451	58.64	58.15	.2985	.3066

TABLE II.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

CARS, STEAM RAILROAD—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Painters, male:							
North Atlantic.....	6	362	420	55.21	54.01	\$0.2861	\$0.3091
South Atlantic.....	7	208	222	57.82	56.88	.2300	.2306
North Central.....	22	871	960	55.44	55.79	.2518	.2500
South Central.....	6	160	134	59.90	59.22	.2352	.2366
Western.....	4	95	108	54.00	54.00	.2832	.2844
United States.....	45	1,696	1,853	56.02	55.66	.2567	.2621
Pattern makers, male:							
North Atlantic.....	5	43	48	56.60	56.35	.2842	.2932
South Atlantic.....	5	31	29	57.97	56.93	.2726	.2855
North Central.....	16	62	74	56.11	56.34	.3004	.2996
South Central.....	6	18	19	59.94	59.32	.3051	.3213
Western.....	3	19	15	54.00	54.00	.3600	.3640
United States.....	35	173	185	56.73	56.55	.2984	.3032
Pipe fitters, male:							
North Atlantic.....	6	121	138	55.23	54.91	.2861	.2794
South Atlantic.....	5	76	83	59.08	56.55	.2286	.2452
North Central.....	17	209	242	55.13	55.80	.2568	.2734
South Central.....	5	45	55	59.82	59.44	.2651	.2675
Western.....	3	104	116	54.00	54.00	.2550	.2976
United States.....	36	555	634	55.86	55.69	.2904	.2757
Tinsmiths, male:							
North Atlantic.....	5	71	71	54.41	53.90	.2658	.2920
South Atlantic.....	6	108	102	56.45	56.57	.2365	.2462
North Central.....	21	345	315	55.33	55.36	.2780	.2774
South Central.....	6	77	72	59.94	59.43	.2672	.2701
Western.....	3	75	59	54.00	54.00	.3165	.3150
United States.....	41	676	619	56.11	55.79	.2798	.2770
Upholsterers, male:							
North Atlantic.....	3	84	96	51.71	51.36	.3074	.3179
South Atlantic.....	7	34	70	57.50	56.29	.2491	.2522
North Central.....	15	304	177	54.82	55.69	.3144	.2746
South Central.....	5	10	14	59.90	59.14	.2756	.2749
Western.....	3	28	29	54.00	54.00	.2639	.2644
United States.....	33	460	375	54.51	54.36	.3075	.2844

CLOTHING, FACTORY PRODUCT.

Buttonhole makers, machine, male:							
North Atlantic.....	4	6	6	55.17	55.17	\$.2915	\$.2915
South Atlantic.....	3	11	11	56.54	56.54	.2729	.2470
North Central.....	3	6	6	55.33	55.33	.2714	.2714
United States.....	10	23	23	55.91	55.91	.2777	.2470
Buttonhole makers, machine, female:							
North Atlantic.....	3	17	17	55.17	55.17	.2714	.2714
South Atlantic.....	3	24	24	55.17	55.17	.2714	.2714
North Central.....	3	23	23	55.17	55.17	.2714	.2714
South Central.....	2	15	15	55.17	55.17	.2714	.2714
United States.....	14	79	79	55.17	55.17	.2714	.2714
Cutters, hand, male:							
North Atlantic.....	10	45	45	55.17	55.17	.2714	.2714
South Atlantic.....	3	10	10	55.17	55.17	.2714	.2714
North Central.....	10	246	246	55.17	55.17	.2714	.2714
United States.....	23	304	304	55.17	55.17	.2714	.2714

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

CLOTHING, FACTORY PRODUCT—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Cutters, machine, male:							
North Atlantic.....	8	15	14	50.20	50.14	\$0.4530	\$0.4454
South Atlantic.....	3	49	51	53.92	53.92	.3502	.3496
North Central.....	8	147	167	48.39	48.34	.4518	.4277
South Central.....	2	6	5	54.33	53.80	.1861	.2059
United States.....	21	217	237	49.93	49.76	.4216	.4073
Examiners, male:							
North Atlantic.....	7	66	57	52.23	51.21	.2834	.2930
South Atlantic.....	4	20	22	55.20	55.27	.2460	.2473
North Central.....	7	49	50	50.69	50.76	.3112	.3074
United States.....	18	135	129	52.11	51.73	.2880	.2908
Examiners, female:							
North Atlantic.....	2	9	9	52.67	53.33	.1412	.1254
South Atlantic.....	4	15	24	56.20	55.92	.1198	.1196
South Central.....	2	8	11	54.13	53.82	.1040	.0999
United States.....	8	32	44	54.69	54.86	.1219	.1158
Finishers, female:							
North Atlantic.....	10	254	286	55.51	55.45	.1079	.1139
South Atlantic.....	4	203	224	58.05	57.63	.0968	.1000
North Central.....	10	264	279	54.38	54.41	.1165	.1206
South Central.....	2	49	48	55.88	54.42	.0676	.0814
United States.....	26	770	837	55.82	55.63	.1054	.1105
Pressers, male:							
North Atlantic.....	13	320	362	54.31	54.43	.1988	.2008
South Atlantic.....	4	89	88	58.67	58.78	.2038	.2001
North Central.....	10	173	183	54.25	54.23	.2701	.2614
South Central.....	2	13	11	56.85	54.45	.1854	.1802
United States.....	29	595	644	55.00	54.97	.2200	.2176
Pressers, female:							
North Atlantic.....	3	9	11	52.22	53.09	.1470	.1573
North Central.....	2	2	2	58.00	58.00	.1026	.1179
United States.....	5	11	13	53.27	53.85	.1380	.1512
Sewing-machine operators, male:							
North Atlantic.....	12	476	551	55.15	55.26	.2029	.2084
South Atlantic.....	4	128	140	58.78	58.72	.2572	.2362
North Central.....	6	43	60	54.74	54.47	.2800	.2848
South Central.....	2	10	8	56.40	54.13	.1719	.1767
United States.....	24	657	759	55.85	55.82	.2180	.2193
Sewing-machine operators, female:							
North Atlantic.....	11	467	511	54.09	54.14	.1260	.1327
South Atlantic.....	3	223	214	55.87	55.84	.1121	.1162
North Central.....	10	538	618	55.09	54.79	.1470	.1509
South Central.....	2	185	195	54.86	53.92	.1027	.1149
United States.....	26	1,413	1,538	54.85	54.61	.1288	.1354

CLOTHING, MEN'S, CUSTOM WORK.

Bushelmen, male:							
North Atlantic.....	28	97	102	56.97	57.13	\$0.2479	\$0.2532
South Atlantic.....	19	42	47	58.93	58.72	.2416	.2433
North Central.....	32	104	106	58.30	58.24	.2526	.2560
South Central.....	17	28	29	59.14	59.07	.3032	.3072
Western.....	15	25	26	56.12	56.15	.3309	.3345
United States.....	111	296	310	57.85	57.85	.2609	.2645

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.**CLOTHING, MEN'S, CUSTOM WORK—Concluded.**

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Busshermen, female:							
North Atlantic.....	4	8	8	57.75	57.75	\$0.1495	\$0.1500
South Atlantic.....	5	14	12	57.64	57.75	.1216	.1184
North Central.....	2	3	4	57.33	57.00	.1314	.1384
South Central.....	2	5	5	57.60	57.60	.1094	.1094
United States.....	13	30	29	57.63	57.62	.1280	.1283
Coat makers, male:							
North Atlantic.....	9	45	46	68.00	67.22	.2614	.2662
South Atlantic.....	10	80	77	60.15	60.16	.3308	.3271
North Central.....	23	311	328	58.63	58.66	.3035	.3099
South Central.....	10	57	67	59.68	59.45	.3605	.3552
Western.....	9	66	82	55.73	55.46	.3727	.4037
United States.....	61	559	600	59.36	59.16	.3180	.3266
Cutters, male:							
North Atlantic.....	27	77	76	55.00	54.89	.4964	.5165
South Atlantic.....	17	30	31	57.30	57.19	.4970	.4993
North Central.....	30	75	76	56.87	56.93	.5235	.5446
South Central.....	16	22	24	58.09	58.25	.6139	.6293
Western.....	11	14	14	55.57	55.57	.7250	.7511
United States.....	101	218	221	56.31	56.33	.5323	.5509
Pants makers, male:							
North Atlantic.....	4	9	9	75.78	75.78	.2427	.2242
South Atlantic.....	6	20	20	60.00	60.00	.3168	.3224
North Central.....	20	84	80	58.69	58.88	.2582	.2704
South Central.....	8	16	16	59.75	59.75	.3156	.3452
Western.....	7	15	16	56.00	56.25	.3253	.3434
United States.....	45	144	141	59.78	59.91	.2787	.2916
Pants makers, female:							
North Atlantic.....	3	7	7	69.71	69.71	.1655	.1731
South Atlantic.....	4	22	20	59.18	59.10	.1209	.1232
North Central.....	4	90	75	56.78	56.92	.1242	.1249
South Central.....	3	17	18	59.29	59.33	.1438	.1536
Western.....	2	14	15	54.00	54.00	.1653	.1698
United States.....	16	150	135	57.76	57.90	.1317	.1360

COTTON GOODS.

Carding-machine tenders, male:							
North Atlantic.....	18	349	354	59.15	59.18	\$0.1130	\$0.1158
South Atlantic.....	9	86	94	66.00	66.00	.0735	.0794
South Central.....	2	7	7	64.71	64.71	.0756	.0763
United States.....	29	442	455	60.57	60.67	.1048	.1077
Dyers, male:							
North Atlantic.....	4	338	339	59.90	59.90	.1331	.1331
South Atlantic.....	4	46	43	66.00	66.00	.0900	.0979
United States.....	8	384	382	60.63	60.59	.1280	.1291
Loom fixers, male:							
North Atlantic.....	17	618	604	59.15	59.17	.2068	.2060
South Atlantic.....	9	126	130	66.00	66.00	.1367	.1368
South Central.....	3	38	38	64.50	63.32	.1466	.1552
United States.....	29	782	772	60.52	60.53	.1926	.1919
Spinners, frame, male:							
North Atlantic.....	7	43	44	59.02	59.45	.0841	.0885
South Atlantic.....	4	78	72	66.00	66.00	.0584	.0744
United States.....	11	121	116	63.52	63.52	.0675	.0797

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

COTTON GOODS—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Spinners, frame, female:							
North Atlantic.....	17	2,216	2,301	58.97	58.95	\$0.0959	\$0.0992
South Atlantic.....	9	553	533	66.00	66.00	.0609	.0736
South Central.....	3	222	228	64.32	64.79	.0524	.0528
United States.....	29	2,991	3,062	60.67	60.61	.0862	.0913
Spinners, mule, male:							
North Atlantic.....	13	321	316	59.45	59.43	.1806	.1907
Weavers, male:							
North Atlantic.....	17	2,726	2,678	59.13	59.10	.1555	.1574
South Atlantic.....	9	578	618	66.00	66.00	.1057	.1077
South Central.....	2	166	146	65.71	65.84	.0847	.0940
United States.....	28	3,470	3,442	60.59	60.63	.1438	.1458
Weavers, female:							
North Atlantic.....	17	5,529	5,473	59.08	59.12	.1444	.1445
South Atlantic.....	9	680	642	66.00	66.00	.0917	.0937
South Central.....	3	395	336	64.12	64.38	.0788	.0807
United States.....	29	6,604	6,451	60.00	60.08	.1350	.1361

DYEING, FINISHING, AND PRINTING TEXTILES.

Bleachers, male:							
North Atlantic.....	14	312	394	58.92	59.05	\$0.1207	\$0.1212
Calendriers, male:							
North Atlantic.....	14	210	255	58.85	59.06	.1446	.1434
Color mixers, male:							
North Atlantic.....	9	129	139	57.91	58.88	.1282	.1313
Dyers, male:							
North Atlantic.....	14	418	413	59.10	59.14	.1432	.1443
Engravers, male:							
North Atlantic.....	8	79	83	57.92	57.70	.4472	.4499
Printers, male:							
North Atlantic.....	10	98	101	58.66	58.32	.4484	.4446

ELECTRICAL APPARATUS AND SUPPLIES.

Armature winders, male:							
North Atlantic.....	5	221	331	54.55	54.70	\$0.2757	\$0.2871
North Central.....	2	17	25	54.41	54.40	.2520	.2359
United States.....	7	238	356	54.54	54.68	.2740	.2835
Brass finishers, male:							
North Atlantic.....	4	59	50	54.83	54.68	.2924	.3101
North Central.....	1	10	34	54.00	54.00	.2360	.2376
United States.....	5	69	84	54.71	54.40	.2847	.2808
Incandescent lamp makers, female: (a)							
North Atlantic.....	1	459	490	55.00	55.00	.1237	.1250
Machinists, male:							
North Atlantic.....	5	840	1,335	54.31	54.23	.2880	.2814
North Central.....	2	46	70	54.11	54.07	.2527	.2436
United States.....	7	932	1,405	54.30	54.22	.2863	.2795
Pattern makers, male:							
North Atlantic.....	3	122	150	54.89	54.75	.3725	.3813
North Central.....	1	19	27	54.00	54.00	.3558	.3406
United States.....	4	141	177	54.77	54.63	.3702	.3751

(a) Includes carbon mounting, sealing in, and exhausting and sealing.

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

FLOUR.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Bolters, male:							
North Atlantic.....	4	14	14	68.57	68.57	\$0.2457	\$0.2457
South Atlantic.....	2	10	10	72.00	72.00	.1111	.1157
North Central.....	17	95	92	55.49	55.76	.2692	.2674
South Central.....	4	20	18	72.00	72.00	.1479	.1459
Western.....	5	11	11	68.18	68.18	.2421	.2459
United States.....	32	150	145	60.95	61.08	.2383	.2381
Laborers, male:							
North Atlantic.....	8	220	211	60.93	60.97	.1786	.1810
South Atlantic.....	2	35	36	67.89	68.00	.0883	.0923
North Central.....	26	1,004	1,052	61.26	61.35	.1777	.1768
South Central.....	4	165	196	69.31	69.92	.1022	.1060
Western.....	5	63	61	65.52	65.31	.2302	.2306
United States.....	45	1,487	1,556	62.44	62.68	.1696	.1686
Millers, male: (a)							
North Atlantic.....	9	33	33	65.76	65.76	.2677	.2680
South Atlantic.....	2	6	6	70.00	70.00	.1551	.1620
North Central.....	26	207	214	59.03	59.29	.2712	.2731
South Central.....	4	17	19	72.00	72.00	.2219	.2164
Western.....	5	15	15	67.60	67.60	.3411	.3411
United States.....	46	278	287	61.32	61.53	.2690	.2701
Millwrights, male:							
North Atlantic.....	6	19	16	57.79	57.38	.3893	.3967
South Atlantic.....	2	2	2	66.00	66.00	.3125	.3021
North Central.....	21	84	99	61.10	60.93	.2987	.2908
South Central.....	4	16	16	59.63	59.69	.3068	.2923
Western.....	5	6	6	65.00	65.00	.2979	.2979
United States.....	38	127	139	60.68	60.63	.3134	.3036
Packers, male:							
North Atlantic.....	9	147	139	62.20	62.50	.1795	.1844
South Atlantic.....	2	38	43	72.00	72.00	.0992	.1036
North Central.....	25	787	869	57.26	57.85	.2203	.2245
South Central.....	4	103	130	65.24	65.72	.1437	.1412
Western.....	5	39	39	68.46	68.46	.2418	.2487
United States.....	45	1,114	1,220	59.54	60.06	.2045	.2076

FOUNDRY AND MACHINE SHOP.

Blacksmiths, male:							
North Atlantic.....	65	318	339	57.72	57.54	\$0.2875	\$0.2926
South Atlantic.....	18	61	62	54.97	55.23	.2750	.2798
North Central.....	58	237	269	56.61	56.67	.2965	.2999
South Central.....	21	39	44	55.77	55.84	.3176	.3289
Western.....	17	58	56	53.98	54.73	.3834	.3817
United States.....	179	713	751	55.30	56.77	.2989	.3030
Boiler makers, male:							
North Atlantic.....	35	613	614	56.37	56.42	.2838	.2883
South Atlantic.....	11	71	73	54.45	53.11	.2947	.2927
North Central.....	24	298	291	55.81	55.64	.2868	.3063
South Central.....	10	92	96	57.70	57.93	.3199	.3151
Western.....	11	112	108	54.21	53.94	.3887	.3814
United States.....	91	1,186	1,182	56.01	55.92	.2979	.3037
Boiler riveters, male:							
North Atlantic.....	12	100	104	55.87	55.67	.2790	.2830
South Atlantic.....	1	25	39	54.00	54.00	.2456	.2578
North Central.....	4	29	21	58.00	57.00	.2161	.2268
South Central.....	3	9	8	59.11	59.13	.2857	.2986
United States.....	20	163	172	56.14	55.62	.2630	.2712

* Includes all classes of millers.

TABLE II.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

GAS—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Pipe fitters, male:							
North Atlantic.....	15	271	286	59.48	59.21	\$0.2370	\$0.2346
South Atlantic.....	8	52	60	57.98	57.95	.2430	.2452
North Central.....	16	391	390	59.29	59.33	.2315	.2196
South Central.....	7	78	69	60.26	60.43	.2042	.2056
Western.....	8	232	262	53.50	53.53	.3471	.3450
United States.....	54	1,024	1,067	58.06	57.97	.2576	.2550
Stokers, male: (c)							
North Atlantic.....	14	477	432	78.36	78.00	.2147	.2177
South Atlantic.....	9	166	183	75.23	75.46	.1790	.1730
North Central.....	15	633	575	80.12	79.27	.1978	.2013
South Central.....	5	79	74	83.29	83.24	.1397	.1415
Western.....	7	77	95	77.14	77.89	.2542	.2534
United States.....	50	1,432	1,359	78.98	78.47	.2009	.2031

GLASS.

Batch makers, male:							
North Atlantic.....	18	51	51	58.96	59.22	\$0.1881	\$0.1885
North Central.....	6	14	14	58.71	58.71	.1957	.2058
United States.....	24	65	65	58.91	59.11	.1897	.1922
Blowers, flint glass, male:							
North Atlantic.....	10	457	428	49.63	49.75	.6047	.5990
North Central.....	3	277	223	50.50	50.19	.6182	.5824
United States.....	13	734	651	49.96	49.90	.6097	.5930
Blowers, green glass, male:							
North Atlantic.....	5	300	332	51.09	51.02	.7102	.6710
Blowers, window glass, male:							
North Atlantic.....	5	126	147	41.46	41.17	.7398	.8754
North Central.....	3	87	82	43.95	44.20	.6758	.8321
United States.....	8	213	229	42.48	42.25	.7137	.8599
Cutters, window glass, male:							
North Atlantic.....	5	46	54	50.39	49.15	.5443	.6404
North Central.....	3	27	28	60.00	60.00	.4133	.5175
United States.....	8	73	82	53.95	52.85	.4958	.5984
Flatteners, window glass, male:							
North Atlantic.....	5	30	32	58.40	59.50	.5906	.7298
North Central.....	3	18	18	65.00	65.00	.4915	.5984
United States.....	8	48	50	60.88	61.49	.5535	.6825
Gaffers, flint glass, male:							
North Atlantic.....	6	130	113	50.32	50.44	.5353	.5348
Gatherers, flint glass, male:							
North Atlantic.....	6	186	174	50.34	50.41	.3001	.3022
North Central.....	2	120	149	50.07	49.77	.3627	.3341
United States.....	8	306	323	50.24	50.11	.3247	.3169
Gatherers, window glass, male:							
North Atlantic.....	5	126	147	41.46	41.17	.5372	.6441
North Central.....	3	87	82	43.95	44.20	.4934	.5989
United States.....	8	213	229	42.48	42.25	.5193	.6272

* Includes both chargers and retort men, which are given separately in the Nineteenth Annual Report of this Bureau.

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

GLASS—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Gathering boys (bit), male:							
North Atlantic.....	5	18	17	49.94	49.88	\$0.1707	\$0.1730
Laborers, male:							
North Atlantic.....	18	363	440	59.50	59.58	.1403	.1508
North Central.....	6	113	139	60.35	59.93	.1541	.1613
United States.....	24	506	588	59.60	59.66	.1503	.1533
Leathersmen, male:							
North Atlantic.....	21	150	162	58.70	59.09	.1702	.1681
North Central.....	6	28	24	67.36	65.92	.1644	.1666
United States.....	27	178	186	60.06	59.97	.1693	.1679
Packers, male:							
North Atlantic.....	20	200	219	56.51	56.72	.1937	.1942
North Central.....	2	22	27	58.55	58.74	.1800	.1891
United States.....	22	222	246	56.71	56.94	.1933	.1936
Teasers, male:							
North Atlantic.....	17	88	88	78.61	78.61	.1940	.1931
North Central.....	6	23	29	83.39	83.52	.1873	.1856
United States.....	23	111	117	79.60	79.83	.1926	.1912

HARNESS.

Collar makers, male:							
North Atlantic.....	8	54	54	56.96	56.74	\$0.2798	\$0.2868
South Atlantic.....	2	20	24	58.70	58.67	.1803	.1811
North Central.....	14	207	207	57.01	56.33	.2388	.2431
South Central.....	5	33	33	56.91	56.58	.2203	.2239
Western.....	1	7	7	54.00	54.00	.3303	.3315
United States.....	30	321	325	57.03	56.54	.2421	.2457
Cutters, male:							
North Atlantic.....	11	16	15	56.75	56.53	.2859	.2893
South Atlantic.....	4	22	22	58.77	58.77	.2180	.2226
North Central.....	23	139	149	57.99	56.95	.2649	.2696
South Central.....	6	46	41	58.13	58.15	.2676	.2697
Western.....	5	12	11	55.42	55.55	.3275	.3270
United States.....	49	235	238	57.87	57.24	.2657	.2691
Fitters and finishers, male:							
North Atlantic.....	9	66	67	55.11	55.09	.2765	.2809
South Atlantic.....	1	7	7	59.00	59.00	.1477	.1477
North Central.....	13	253	250	57.10	57.32	.2507	.2531
South Central.....	2	13	10	59.00	59.00	.1609	.1508
Western.....	1	9	11	54.00	54.00	.3251	.2790
United States.....	26	348	345	56.75	56.87	.2523	.2542
Harness makers, male: (a)							
North Atlantic.....	5	35	36	56.00	56.11	.2592	.2639
South Atlantic.....	4	65	63	58.92	58.89	.1942	.1950
North Central.....	17	341	371	57.91	57.01	.2307	.2381
South Central.....	6	80	79	56.81	57.37	.2427	.2302
Western.....	3	35	41	56.03	56.32	.3039	.2860
United States.....	35	556	590	57.63	57.16	.2346	.2373
Stitchers, hand, male:							
North Atlantic.....	9	52	50	54.69	54.50	.2241	.2192
North Central.....	6	16	13	57.63	57.31	.2049	.2089
Western.....	1	3	3	59.00	59.00	.2542	.2542
United States.....	16	71	66	55.54	55.26	.2211	.2187

work.

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

GAS—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Pipe fitters, male:							
North Atlantic.....	15	271	296	59.48	59.21	\$0.2370	\$0.2346
South Atlantic.....	8	52	60	57.98	57.95	.2430	.2452
North Central.....	16	361	390	59.29	59.33	.2315	.2196
South Central.....	7	78	69	60.26	60.43	.2042	.2056
Western.....	8	232	262	53.59	53.93	.3471	.3450
United States.....	54	1,024	1,067	58.06	57.97	.2576	.2550
Stokers, male: (a)							
North Atlantic.....	14	477	432	78.36	78.00	.2147	.2177
South Atlantic.....	9	166	183	75.23	75.46	.1789	.1730
North Central.....	15	633	575	80.12	79.27	.1978	.2013
South Central.....	5	79	74	83.29	83.24	.1397	.1415
Western.....	7	77	95	77.14	77.89	.2542	.2534
United States.....	50	1,432	1,359	78.98	78.47	.2009	.2031

GLASS.

Batch makers, male:							
North Atlantic.....	18	51	51	58.96	59.22	\$0.1881	\$0.1885
North Central.....	6	14	14	58.71	58.71	.1957	.2058
United States.....	24	65	65	58.91	59.11	.1897	.1922
Blowers, flint glass, male:							
North Atlantic.....	10	457	428	49.63	49.75	.0047	.5999
North Central.....	3	277	223	50.50	50.19	.6182	.5824
United States.....	13	734	651	49.96	49.90	.6097	.5639
Blowers, green glass, male:							
North Atlantic.....	5	360	332	51.00	51.02	.7102	.6710
Blowers, window glass, male:							
North Atlantic.....	5	126	147	41.46	41.17	.7398	.8754
North Central.....	3	87	82	43.95	44.20	.6758	.8321
United States.....	8	213	229	42.48	42.25	.7137	.8599
Cutters, window glass, male:							
North Atlantic.....	5	46	54	50.39	49.15	.5443	.6404
North Central.....	3	27	28	60.00	60.00	.4133	.5175
United States.....	8	73	82	53.95	52.85	.4958	.5984
Flatteners, window glass, male:							
North Atlantic.....	5	30	32	58.40	59.50	.5906	.7298
North Central.....	3	18	18	65.00	65.00	.4915	.5984
United States.....	8	48	50	60.88	61.48	.5535	.6825
Gaffers, flint glass, male:							
North Atlantic.....	6	130	113	50.32	50.44	.5353	.5348
Gatherers, flint glass, male:							
North Atlantic.....	6	186	174	50.34	50.41	.3001	.3022
North Central.....	2	120	149	50.07	49.77	.3627	.3341
United States.....	8	306	323	50.24	50.11	.3247	.3169
Gatherers, window glass, male:							
North Atlantic.....	5	126	147	41.46	41.17	.5372	.6441
North Central.....	3	87	82	43.95	44.20	.4934	.5969
United States.....	8	213	229	42.48	42.25	.5193	.6272

* Includes both chargers and retort men, which are given separately in the Nineteenth Annual Report of this Bureau.

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

GLASS—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Gathering boys (bit), male:							
North Atlantic.....	5	18	17	49.94	49.88	\$0.1707	\$0.1739
Laborers, male:							
North Atlantic.....	18	393	449	59.50	59.58	.1493	.1508
North Central.....	6	113	139	60.35	59.93	.1541	.1613
United States.....	24	506	588	59.69	59.66	.1503	.1533
Leersmen, male:							
North Atlantic.....	21	150	162	58.70	59.09	.1702	.1681
North Central.....	6	28	24	67.36	65.92	.1644	.1666
United States.....	27	178	186	60.06	59.97	.1693	.1679
Packers, male:							
North Atlantic.....	20	200	219	56.51	56.72	.1937	.1942
North Central.....	2	22	27	58.55	58.74	.1890	.1891
United States.....	22	222	246	56.71	56.94	.1933	.1936
Teasers, male:							
North Atlantic.....	17	88	88	78.61	78.61	.1940	.1931
North Central.....	6	23	29	83.39	83.52	.1873	.1856
United States.....	23	111	117	79.60	79.83	.1926	.1912

HARNESS.

Collar makers, male:							
North Atlantic.....	8	54	54	56.96	56.74	\$0.2798	\$0.2868
South Atlantic.....	2	20	24	58.70	58.67	.1803	.1811
North Central.....	14	207	207	57.01	56.33	.2388	.2431
South Central.....	5	33	33	56.91	56.58	.2203	.2239
Western.....	1	7	7	54.00	54.00	.3303	.3315
United States.....	30	321	325	57.03	56.54	.2421	.2457
Cutters, male:							
North Atlantic.....	11	16	15	56.75	56.53	.2859	.2893
South Atlantic.....	4	22	22	58.77	58.77	.2180	.2226
North Central.....	23	139	149	57.99	56.95	.2649	.2696
South Central.....	6	46	41	58.13	58.15	.2676	.2697
Western.....	5	12	11	55.42	55.55	.3275	.3270
United States.....	49	235	238	57.87	57.24	.2657	.2691
Fitters and finishers, male:							
North Atlantic.....	9	66	67	55.11	55.09	.2765	.2809
South Atlantic.....	1	7	7	59.00	59.00	.1477	.1477
North Central.....	13	253	250	57.10	57.32	.2507	.2531
South Central.....	2	13	10	59.00	59.00	.1666	.1508
Western.....	1	9	11	54.00	54.00	.3251	.2790
United States.....	26	348	345	56.75	56.87	.2523	.2542
Harness makers, male: (a)							
North Atlantic.....	5	35	36	56.00	56.11	.2592	.2639
South Atlantic.....	4	65	63	58.92	58.89	.1942	.1970
North Central.....	17	341	371	57.91	57.01	.2307	.2381
South Central.....	6	80	79	56.81	57.37	.2427	.2462
Western.....	3	35	41	56.03	56.32	.3039	.2840
United States.....	35	556	590	57.03	57.16	.2346	.2473
Stitchers, hand, male:							
North Atlantic.....	9	52	50	54.69	54.50	.2241	.2172
North Central.....	6	16	13	57.63	57.31	.2049	.2000
Western.....	1	3	3	59.00	59.00	.2542	.2542
United States.....	16	71	66	55.54	55.26	.2211	.2177

(a) Do all parts of the work.

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

HARNESSES—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Stitchers, machine, male:							
North Atlantic.....	4	4	4	53.50	53.50	\$0.2923	\$0.3062
South Atlantic.....	3	13	13	58.77	58.77	.2030	.2030
North Central.....	23	159	143	57.57	57.07	.2597	.2570
South Central.....	6	33	33	57.64	57.79	.2545	.2556
Western.....	4	11	12	54.45	54.42	.3119	.3141
United States.....	40	220	205	57.42	57.07	.2588	.2577

HATS, FUR.

Blockers, male:							
North Atlantic.....	13	156	185	54.99	54.01	\$0.3406	\$0.3585
Colorers, male:							
North Atlantic.....	12	68	76	55.53	55.38	.1927	.1965
Coners, male:							
North Atlantic.....	15	82	91	55.61	54.14	.2810	.2903
Curlers, male:							
North Atlantic.....	11	80	90	54.01	53.82	.4562	.4680
Feeders, male:							
North Atlantic.....	4	8	11	54.50	54.45	.0974	.0993
Feeders, female:							
North Atlantic.....	9	40	47	54.18	54.23	.1093	.1082
Finishers, male:							
North Atlantic.....	13	887	876	53.92	53.79	.3016	.3145
Flangers, male:							
North Atlantic.....	13	151	154	55.70	55.71	.2854	.3006
Fur blowers, male:							
North Atlantic.....	13	76	80	55.50	55.41	.1256	.1384
Hardeners, male:							
North Atlantic.....	14	60	74	55.13	53.97	.2934	.2985
Pouncers, male:							
North Atlantic.....	11	166	201	54.40	54.26	.2545	.2441
Sizers, male:							
North Atlantic.....	13	1,040	1,141	53.85	53.65	.2867	.2828
Stiffeners, male:							
North Atlantic.....	14	46	48	53.00	52.13	.3093	.3668
Trimmers, female:							
North Atlantic.....	14	1,149	1,215	54.48	54.36	.1294	.1411
Weighers, female:							
North Atlantic.....	11	28	31	53.64	53.68	.1190	.1207

HOSIERY AND KNIT GOODS.

Boarders, male:							
North Atlantic.....	14	181	214	58.50	58.70	\$0.1854	\$0.1913
South Atlantic.....	2	36	36	65.92	65.92	.1220	.1152
North Central.....	4	81	81	59.78	58.49	.1253	.1266
United States.....	20	298	331	59.47	59.43	.1614	.1672
Finishers, female:							
North Atlantic.....	14	667	834	58.06	57.93	.1208	.1278
South Atlantic.....	1	59	39	66.00	66.00	.0848	.0974
North Central.....	4	170	188	59.01	59.07	.0806	.0815
United States.....	19	896	1,061	58.76	58.43	.1108	.1185
Knitters, male:							
North Atlantic.....	10	227	248	58.85	58.58	.1845	.1939
South Atlantic.....	2	46	51	65.54	65.59	.1039	.1083
North Central.....	2	107	124	58.16	58.15	.2954	.2934
United States.....	14	340	423	59.47	59.30	.2060	.2127
Knitters, female:							
North Atlantic.....	13	383	524	58.48	58.45	.1199	.1330
North Central.....	4	232	230	58.63	58.57	.0932	.0960
United States.....	17	615	754	58.54	58.48	.1098	.1223

TABLE L.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

HOSIERY AND KNIT GOODS—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Loopers, female:							
North Atlantic.....	11	287	333	58.16	58.76	\$0.1318	\$0.1427
South Atlantic.....	2	126	123	65.49	65.63	.0735	.0745
North Central.....	3	113	119	58.58	58.65	.1141	.1075
United States.....	16	526	595	60.00	60.16	.1140	.1215
Menders, female:							
North Atlantic.....	14	290	338	58.60	58.35	.1192	.1295
South Atlantic.....	2	58	65	65.47	65.43	.0566	.0706
North Central.....	2	82	110	58.51	58.45	.0983	.0944
United States.....	18	430	513	59.51	59.27	.1088	.1145
Pressers, male:							
North Atlantic.....	11	70	72	59.11	58.92	.1535	.1603
South Atlantic.....	2	19	24	65.21	65.08	.0995	.0710
North Central.....	1	9	9	57.56	57.56	.1430	.1530
United States.....	14	98	105	60.15	60.21	.1363	.1455
Pressers, female:							
North Atlantic.....	3	26	76	57.19	57.97	.1016	.1094
Ribbers, female:							
North Atlantic.....	4	118	124	60.00	60.00	.1397	.1480
North Central.....	2	37	46	59.68	59.67	.1078	.1117
United States.....	6	155	170	59.92	59.91	.1321	.1381

IRON AND STEEL, BAR.

Catchers, male:							
North Atlantic.....	11	41	41	61.41	62.00	\$0.2952	\$0.3153
South Atlantic.....	2	10	13	60.00	60.00	.2280	.2531
North Central.....	8	44	43	64.36	64.58	.5173	.5269
South Central.....	2	8	8	72.00	72.00	.2658	.2527
United States.....	23	103	105	63.36	63.57	.3812	.3907
Heaters, male:							
North Atlantic.....	9	32	33	62.50	63.52	.5030	.4989
South Atlantic.....	2	10	11	60.00	60.00	.4303	.4609
North Central.....	9	66	63	67.76	67.83	.7165	.6988
South Central.....	2	8	8	72.00	72.00	.4761	.4719
United States.....	22	116	115	65.93	66.13	.6164	.5870
Heaters' helpers, male:							
North Atlantic.....	8	32	33	65.75	66.67	.2466	.2564
South Atlantic.....	2	12	14	60.00	60.00	.2089	.2404
North Central.....	9	74	71	67.35	67.39	.3327	.3228
South Central.....	2	12	13	72.00	72.00	.1909	.1715
United States.....	21	130	131	66.71	66.88	.2870	.2823
Hot straighteners, male:							
North Atlantic.....	11	82	81	61.89	62.06	.1909	.1918
South Atlantic.....	2	30	33	60.00	60.00	.1431	.1604
North Central.....	6	106	109	65.09	64.62	.2664	.2709
South Central.....	2	14	15	72.00	72.00	.1093	.1203
United States.....	21	222	238	63.89	63.58	.2138	.2192
Rollers, male:							
North Atlantic.....	11	31	31	62.16	62.55	.6978	.7237
South Atlantic.....	2	7	8	60.00	60.00	.5596	.6682
North Central.....	6	33	33	70.30	70.30	1.0627	1.0827
South Central.....	1	6	10	72.00	72.00	.6285	.7886
United States.....	20	77	82	66.22	66.57	.8362	.8731

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

IRON AND STEEL, BAR—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Roughers, male:							
North Atlantic.....	11	65	65	62.43	63.17	\$0.3289	\$0.3536
South Atlantic.....	2	14	21	60.00	60.00	.3296	.3547
North Central.....	10	137	138	60.69	60.90	.5191	.5236
South Central.....	2	10	19	72.00	72.00	.3228	.3472
United States.....	25	232	243	61.92	62.30	.4408	.4498

IRON AND STEEL, BESSEMER CONVERTING.

Blowers, male:							
North Atlantic.....	7	18	18	60.00	60.00	\$0.5229	\$0.5481
South Atlantic.....	2	5	4	73.20	75.00	.4089	.4104
North Central.....	5	10	11	64.80	65.45	.5693	.5543
South Central.....	2	4	4	78.00	78.00	.3146	.3664
United States.....	16	37	37	65.03	65.19	.4975	.5154
Bottom makers, male:							
North Atlantic.....	7	20	20	68.40	68.40	.2741	.2832
South Atlantic.....	2	6	6	76.00	76.00	.1890	.2112
North Central.....	5	12	12	66.00	66.00	.2908	.3181
South Central.....	2	8	8	64.00	64.00	.1901	.1901
United States.....	16	46	46	68.00	68.00	.2527	.2667
Ladle liners, male:							
North Atlantic.....	7	20	20	64.80	64.80	.3174	.3578
South Atlantic.....	2	5	5	71.80	71.80	.2359	.2937
North Central.....	5	11	11	64.36	65.45	.3835	.3937
South Central.....	2	4	4	78.00	78.00	.2159	.2101
United States.....	16	40	40	66.88	67.18	.3153	.3449
Melters, male:							
North Atlantic.....	7	29	27	64.55	66.67	.4124	.4082
South Atlantic.....	2	4	4	75.00	75.00	.3673	.4449
North Central.....	4	31	35	55.19	48.37	.4730	.5194
United States.....	13	64	66	58.90	58.00	.4390	.4684
Steel pourers, male:							
North Atlantic.....	7	25	23	56.64	57.75	.4056	.4542
South Atlantic.....	2	4	4	75.00	75.00	.3385	.4221
North Central.....	5	17	17	49.50	50.42	.4052	.4631
United States.....	14	46	48	55.73	56.75	.4066	.4536
Vessel men, male:							
North Atlantic.....	7	15	15	57.75	62.14	.4673	.5367
South Atlantic.....	2	4	4	75.00	75.00	.3485	.4099
North Central.....	5	15	15	45.40	47.89	.3467	.3686
South Central.....	2	4	4	78.00	78.00	.2666	.2775
United States.....	16	38	38	56.52	60.44	.3472	.3806

IRON AND STEEL, BLAST FURNACE.

Order makers, male:							
North Atlantic.....	7	4	4	44.00	44.00	\$0.1405	\$0.1449
South Atlantic.....	2	4	4	44.00	44.00	.1405	.1461
North Central.....	5	24	25	44.00	44.00	.1367	.1508
South Central.....	2	18	18	44.00	44.00	.1125	.1144
United States.....	26	50	51	44.00	44.00	.1327	.1480

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

IRON AND STEEL, BLAST FURNACE—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Hot-blast men, male:							
North Atlantic.....	9	51	58	84.00	84.00	\$0.1661	\$0.1787
South Atlantic.....	2	10	10	84.00	84.00	.1517	.1550
North Central.....	7	33	36	84.00	84.00	.1740	.1734
South Central.....	5	14	14	84.00	84.00	.1428	.1416
United States.....	23	108	118	84.00	84.00	.1642	.1707
Keepers, male:							
North Atlantic.....	9	57	62	84.00	84.00	.1898	.1989
South Atlantic.....	2	10	10	84.00	84.00	.1700	.1840
North Central.....	7	44	44	84.00	84.00	.2010	.2095
South Central.....	5	14	14	84.00	84.00	.1548	.1578
United States.....	23	125	130	84.00	84.00	.1882	.1969
Keepers' helpers, male:							
North Atlantic.....	9	96	118	84.00	84.00	.1527	.1608
South Atlantic.....	2	30	28	84.00	84.00	.1400	.1423
North Central.....	7	127	129	84.00	84.00	.1644	.1726
South Central.....	5	40	42	84.00	84.00	.1187	.1206
United States.....	23	293	317	84.00	84.00	.1518	.1586
Top filers, male:							
North Atlantic.....	6	58	72	84.00	84.00	.1436	.1514
South Atlantic.....	1	18	18	84.00	84.00	.1350	.1350
North Central.....	7	89	67	72.04	78.99	.2120	.2002
South Central.....	5	16	16	84.00	84.00	.1422	.1463
United States.....	19	181	173	78.12	82.06	.1762	.1681

LEATHER.

Colorers, male:							
North Atlantic.....	15	178	172	58.85	58.70	\$0.1999	\$0.1947
South Atlantic.....	2	26	25	60.00	60.00	.1436	.1450
North Central.....	8	34	40	58.65	59.70	.2001	.1961
Western.....	2	2	2	57.00	57.00	.2412	.2412
United States.....	27	240	239	58.93	58.99	.1942	.1901
Fleshers, male:							
North Atlantic.....	22	224	231	58.77	59.18	.1952	.1820
South Atlantic.....	11	57	64	59.95	59.95	.1496	.1514
North Central.....	11	69	68	58.25	59.00	.1942	.1973
South Central.....	5	16	16	59.06	59.06	.1807	.1825
United States.....	49	366	379	58.87	59.27	.1873	.1796
Glasers, male:							
North Atlantic.....	15	595	600	59.12	59.08	.1793	.1784
South Atlantic.....	2	72	72	60.00	60.00	.1796	.1823
North Central.....	3	18	30	55.39	59.80	.1571	.1539
United States.....	20	685	702	59.12	59.20	.1787	.1777
Glasers, female:							
North Atlantic.....	2	25	20	59.68	59.60	.1201	.1391
South Atlantic.....	2	163	141	60.00	60.00	.1087	.1102
North Central.....	3	31	49	59.71	59.71	.1063	.0928
United States.....	7	219	210	59.92	59.90	.1097	.1089
Limers, male:							
North Atlantic.....	18	215	221	58.24	58.17	.1824	.1833
South Atlantic.....	8	68	83	59.94	59.95	.1302	.1381
North Central.....	12	142	140	59.01	59.67	.1713	.1706
South Central.....	4	24	23	59.42	59.39	.1265	.1292
Western.....	2	6	6	57.83	57.83	.2076	.2076
United States.....	44	455	473	58.79	58.98	.1685	.1693

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

LEATHER—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Rollers, male:							
North Atlantic.....	9	61	63	55.93	58.41	\$0.1983	\$0.2034
South Atlantic.....	6	37	35	60.00	60.00	.1458	.1485
North Central.....	4	16	16	59.38	59.38	.1739	.1804
South Central.....	3	14	17	59.86	59.88	.1433	.1409
United States.....	22	128	131	57.97	58.18	.1740	.1778
Setters out, male:							
North Atlantic.....	16	189	200	58.98	58.96	.1705	.1746
South Atlantic.....	3	16	15	59.94	59.80	.1632	.1349
North Central.....	10	133	120	58.00	59.06	.2034	.2162
Western.....	2	5	6	57.00	57.00	.2456	.2456
United States.....	31	343	341	58.62	59.00	.1841	.1888
Shavers, male:							
North Atlantic.....	18	97	108	57.93	58.10	.3029	.3074
South Atlantic.....	3	21	28	60.00	60.00	.1858	.1855
North Central.....	9	99	122	59.09	59.70	.2361	.2324
Western.....	2	3	3	57.00	57.00	.2749	.2749
United States.....	32	220	261	58.64	59.04	.2612	.2569
Stakers, male:							
North Atlantic.....	13	326	365	59.04	59.05	.2131	.2160
South Atlantic.....	2	31	43	60.00	60.00	.1893	.1776
North Central.....	4	55	48	56.60	59.44	.1746	.1692
Western.....	1	12	7	57.00	57.00	.2339	.2381
United States.....	20	424	463	58.73	59.15	.2070	.2079
Tan-yard hands, male: (a)							
North Atlantic.....	23	380	421	58.82	58.87	.1579	.1568
South Atlantic.....	12	206	290	59.97	59.98	.1214	.1243
North Central.....	11	274	281	58.82	59.20	.1779	.1794
South Central.....	4	77	78	59.84	59.85	.1099	.1101
Western.....	2	6	9	57.50	57.33	.2258	.2110
United States.....	52	1,003	1,079	59.20	59.31	.1504	.1518
Unhairers, male:							
North Atlantic.....	19	145	152	58.39	58.53	.1971	.2060
South Atlantic.....	12	120	148	59.99	59.99	.1438	.1498
North Central.....	9	79	82	58.10	59.02	.1964	.2019
South Central.....	3	18	16	60.00	60.00	.1295	.1289
Western.....	2	14	14	57.00	57.00	.2343	.2337
United States.....	45	376	412	58.86	59.16	.1759	.1829

LIQUORS, MALT.

Bottlers, male:							
North Atlantic.....	11	86	97	56.97	57.34	\$0.2067	\$0.2082
South Atlantic.....	3	41	41	56.93	56.93	.1773	.1773
North Central.....	16	2,747	2,798	59.93	59.47	.1892	.1919
South Central.....	2	110	108	56.73	56.89	.1975	.1965
Western.....	3	46	47	49.17	49.15	.2939	.2959
United States.....	35	3,030	3,091	51.37	50.97	.1914	.1939
Cellar men, male:							
North Atlantic.....	22	298	322	57.69	57.55	.2956	.2985
South Atlantic.....	3	31	32	55.94	56.06	.2716	.2695
North Central.....	18	413	413	49.22	49.24	.3162	.3226
South Central.....	4	40	40	53.25	53.55	.2920	.2907
Western.....	4	76	72	48.00	48.00	.4169	.4266
United States.....	51	858	879	52.48	52.63	.3152	.3189

a Handle hides at the vats and in the yards, and are called tanners in the Nineteenth Annual Report of this Bureau.

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

LIQUORS, MALT—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Coopers, male:							
North Atlantic.....	21	65	69	54.91	55.29	\$0.3145	\$0.3152
South Atlantic.....	2	4	4	60.00	60.00	.2542	.2542
North Central.....	11	312	274	48.42	48.40	.3046	.3189
South Central.....	2	14	12	54.00	55.00	.3091	.3025
Western.....	4	25	20	50.16	48.00	.4071	.4359
United States.....	40	420	379	49.83	50.03	.3119	.3232
Drivers, male:							
North Atlantic.....	22	566	581	59.21	58.62	.2856	.2914
South Atlantic.....	3	45	41	59.33	58.98	.2661	.2739
North Central.....	18	469	483	58.89	57.84	.2555	.2626
South Central.....	4	89	91	61.75	62.09	.2480	.2397
Western.....	5	56	62	58.29	58.26	.3539	.3516
United States.....	52	1,225	1,258	59.23	58.56	.2735	.2789
Fermenters, male:							
North Atlantic.....	22	95	98	57.38	57.31	.3002	.3052
South Atlantic.....	3	10	10	57.30	57.30	.3054	.3054
North Central.....	17	141	142	48.72	48.78	.3223	.3282
South Central.....	1	1	1	54.00	54.00	.2882	.2882
Western.....	3	9	10	48.00	48.00	.4125	.4150
United States.....	46	256	261	52.27	52.30	.3165	.3219
Kettle men, male:							
North Atlantic.....	22	78	79	57.23	56.96	.3010	.3073
South Atlantic.....	3	7	7	56.14	56.14	.2993	.2993
North Central.....	18	117	118	49.80	48.94	.3241	.3282
South Central.....	4	11	10	54.55	54.00	.3248	.3322
Western.....	4	28	26	48.00	48.00	.4216	.4332
United States.....	51	241	240	52.40	51.90	.3273	.3320
Malt-house men, male:							
North Atlantic.....	6	74	78	64.66	64.59	.2432	.2384
South Atlantic.....	11	224	218	49.09	49.09	.3229	.3301
Western.....	4	39	38	48.00	48.00	.4123	.4155
United States.....	21	337	334	52.38	52.59	.3151	.3184
Washers, male:							
North Atlantic.....	22	246	245	57.03	57.00	.2666	.2701
South Atlantic.....	3	14	16	56.14	56.63	.2511	.2599
North Central.....	18	326	360	49.06	48.98	.2953	.3020
South Central.....	3	25	24	52.08	52.25	.2971	.2956
Western.....	4	56	65	48.00	48.00	.4150	.4192
United States.....	50	667	710	52.17	51.94	.2939	.3004

LUMBER.

Band setters, male:							
North Atlantic.....	2	5	9	60.00	60.00	\$0.2800	\$0.2978
South Atlantic.....	2	3	3	64.00	64.00	.2485	.2485
North Central.....	22	68	69	60.69	60.67	.2500	.2561
South Central.....	10	18	19	63.33	63.16	.2095	.2077
Western.....	6	17	19	60.00	60.00	.2397	.2450
United States.....	42	111	119	61.07	60.99	.2434	.2496
Cant setters, gang, male:							
North Central.....	8	23	23	61.04	61.04	.1967	.2029
South Central.....	4	4	4	64.50	64.50	.2114	.2114
Western.....	2	2	2	60.00	60.00	.1750	.1750
United States.....	14	29	29	61.45	61.45	.1972	.2022

TABLE II.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

LUMBER—Continued.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Carriage men, male:							
North Atlantic.....	3	4	4	58.25	58.25	\$0.1995	\$0.1995
South Atlantic.....	7	15	18	62.40	62.83	.1290	.1412
North Central.....	19	59	60	60.68	60.65	.2008	.1969
South Central.....	13	36	37	64.50	64.38	.1652	.1669
Western.....	6	27	32	60.00	60.00	.1956	.2013
United States.....	48	141	151	61.64	61.62	.1831	.1851
Choppers and sawyers, in woods, male:							
South Atlantic.....	6	98	107	58.78	58.88	.1474	.1430
North Central.....	15	1,673	1,754	60.23	60.24	.1704	.1823
South Central.....	5	106	90	62.04	62.67	.1441	.1530
Western.....	6	262	268	64.28	64.19	.2696	.2664
United States.....	32	2,139	2,219	60.75	60.75	.1802	.1893
Circular setters, male:							
North Atlantic.....	3	3	3	57.67	57.67	.2493	.2493
South Atlantic.....	6	14	10	63.64	63.60	.1123	.1327
North Central.....	4	6	6	59.83	59.83	.2375	.2458
South Central.....	7	18	16	61.33	61.30	.1793	.1843
Western.....	3	6	7	60.00	60.00	.2449	.2527
United States.....	23	47	42	61.43	61.24	.1796	.1969
Edger men, male:							
North Atlantic.....	4	4	4	58.25	58.25	.2749	.2774
South Atlantic.....	9	11	11	62.73	62.73	.1771	.1731
North Central.....	26	89	95	60.18	60.15	.2366	.2418
South Central.....	17	37	37	62.76	62.76	.2084	.2123
Western.....	9	17	20	60.00	60.00	.3033	.3035
United States.....	65	158	167	60.89	60.83	.2340	.2390
Fillers, male:							
North Atlantic.....	5	11	12	60.00	60.00	.3538	.3583
South Atlantic.....	7	12	11	63.30	63.55	.3488	.3581
North Central.....	23	49	50	59.96	59.94	.4617	.4645
South Central.....	16	25	25	63.12	63.12	.4831	.5049
Western.....	8	20	25	60.23	60.00	.4606	.4839
United States.....	59	123	123	61.01	60.93	.4432	.4568
Laborers, male:							
North Atlantic.....	5	122	141	59.43	59.50	.1662	.1708
South Atlantic.....	9	460	484	62.20	62.29	.1109	.1156
North Central.....	26	2,326	2,627	60.16	60.15	.1619	.1648
South Central.....	16	1,635	1,611	63.29	63.47	.1347	.1369
Western.....	8	1,253	1,518	60.00	60.00	.1879	.1917
United States.....	64	5,796	6,381	61.15	61.10	.1559	.1606
Sawyers, band, male:							
North Atlantic.....	3	6	9	60.00	60.00	.4583	.5083
South Atlantic.....	2	3	3	64.00	64.00	.5576	.5576
North Central.....	25	59	60	60.29	60.27	.4825	.4938
South Central.....	12	19	18	63.16	63.33	.4947	.5195
Western.....	8	25	27	60.00	60.00	.4123	.4246
United States.....	59	112	117	60.81	60.75	.4696	.4845
Sawyers, circular, male:							
North Atlantic.....	2	2	2	56.50	56.50	.4156	.4156
South Atlantic.....	5	6	6	63.00	63.00	.3080	.3080
North Central.....	6	8	8	59.88	59.88	.3266	.3188
South Central.....	9	18	17	61.67	61.76	.3318	.3425
Western.....	3	4	7	60.00	60.00	.4856	.4775
United States.....	25	38	40	61.05	61.00	.3475	.3599

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

LUMBER—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Sawyers, gang, male:							
North Atlantic.....	3	6	6	60.00	60.00	\$0.2292	\$0.2292
South Atlantic.....	10	17	16	60.35	60.38	.2979	.2946
North Central.....	4	5	5	66.00	66.00	.2547	.2547
Western.....	2	2	2	60.00	60.00	.2775	.3025
United States.....	19	30	29	61.20	61.24	.2756	.2747
Trimmers, male:							
North Atlantic.....	3	7	7	59.00	59.00	.2459	.2459
South Atlantic.....	7	11	11	63.55	63.55	.1193	.1211
North Central.....	24	129	134	60.26	60.24	.2271	.2318
South Central.....	15	32	35	63.38	63.09	.1584	.1597
Western.....	9	24	29	60.00	60.00	.2327	.2321
United States.....	58	203	216	60.86	60.80	.2117	.2150

MARBLE AND STONE WORK.

Bed rubbers, male:							
North Atlantic.....	23	78	79	47.36	47.34	\$0.3517	\$0.3645
South Atlantic.....	6	24	25	54.42	54.64	.1787	.1792
North Central.....	16	83	89	54.28	54.06	.2658	.2613
South Central.....	8	37	38	58.11	58.13	.1971	.1999
Western.....	4	12	8	49.00	49.50	.3044	.3038
United States.....	57	234	239	52.32	52.39	.2766	.2785
Carvers, male:							
North Atlantic.....	25	106	100	45.36	45.42	.6171	.6185
South Atlantic.....	4	12	8	51.33	53.00	.4613	.4294
North Central.....	10	25	25	53.28	53.28	.4040	.4047
South Central.....	8	15	14	52.47	52.64	.4330	.4296
Western.....	5	12	11	49.83	49.09	.4346	.4624
United States.....	52	170	158	47.89	47.94	.5456	.5475
Laborers, male:							
North Atlantic.....	28	247	254	50.66	50.12	.2608	.2670
South Atlantic.....	15	145	141	53.96	53.79	.1667	.1683
North Central.....	26	225	249	58.70	58.71	.1903	.1916
South Central.....	17	164	195	57.80	58.01	.1454	.1447
Western.....	5	33	20	48.36	48.60	.2663	.2709
United States.....	91	814	850	54.81	54.97	.2015	.2014
Letterers, male:							
North Atlantic.....	24	56	61	49.45	49.33	.3789	.3863
South Atlantic.....	4	11	8	54.55	54.75	.2885	.3111
North Central.....	9	40	42	53.90	54.02	.4072	.4336
South Central.....	6	25	24	54.96	55.08	.3107	.3157
Western.....	5	10	13	46.40	47.54	.5375	.4808
United States.....	48	142	148	51.85	51.73	.3790	.3925
Marble cutters, male:							
North Atlantic.....	21	158	163	46.95	46.61	.4768	.4883
South Atlantic.....	11	43	56	52.07	52.43	.3332	.3508
North Central.....	18	83	95	53.96	53.97	.3040	.3045
South Central.....	15	66	67	56.55	56.88	.2978	.3016
Western.....	11	28	32	48.64	48.94	.4509	.4502
United States.....	76	378	413	50.87	50.94	.3893	.3941
Marble polishers, male:							
North Atlantic.....	18	144	126	47.89	48.00	.2763	.2811
South Atlantic.....	7	49	44	54.33	54.48	.1814	.1811
North Central.....	14	151	135	54.24	54.32	.2098	.2146
South Central.....	16	76	76	57.96	57.74	.1754	.1773
Western.....	9	22	19	48.36	48.42	.3292	.3385
United States.....	64	442	400	52.53	52.72	.2284	.2307

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

MARBLE AND STONE WORK—Concluded.

Occupation and geographical division.	Num- ber of estab- lish- ments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Sawyers, male:							
North Atlantic.....	16	48	59	49.56	49.25	\$0.3118	\$0.3159
South Atlantic.....	3	6	6	53.83	53.83	.1950	.1858
North Central.....	25	52	55	58.17	57.55	.2522	.2542
South Central.....	6	23	26	58.17	58.38	.1746	.1761
Western.....	3	6	6	48.00	48.00	.3438	.3490
United States.....	53	135	152	54.47	53.95	.2617	.2658
Stonecutters, granite, male:							
North Atlantic.....	39	573	562	47.93	48.01	.3833	.3947
South Atlantic.....	16	144	129	48.24	48.40	.3958	.3954
North Central.....	11	70	69	53.36	53.42	.3376	.3345
South Central.....	7	56	53	51.07	52.53	.3577	.3456
Western.....	14	205	106	47.62	47.26	.5522	.5482
United States.....	87	1,048	919	48.44	48.65	.4136	.4052
Stonecutters, soft stone, male:							
North Atlantic.....	18	492	424	45.22	45.27	.5405	.5316
South Atlantic.....	11	102	83	48.20	48.24	.4489	.4734
North Central.....	34	314	340	47.18	47.11	.4953	.4970
South Central.....	13	104	115	46.12	46.26	.4719	.4802
Western.....	7	87	74	44.87	44.54	.5878	.6042
United States.....	83	1,090	1,036	46.14	46.17	.5164	.5161
Stonecutters, not specified, male:							
North Atlantic.....	9	135	152	45.50	45.68	.4957	.4954
South Atlantic.....	2	12	15	48.00	48.00	.4792	.4767
North Central.....	2	13	14	46.46	45.71	.4543	.4690
Western.....	2	32	18	48.00	48.00	.5508	.5417
United States.....	15	192	199	46.14	46.07	.5010	.4963
Stone polishers, male:							
North Atlantic.....	13	32	37	50.25	50.76	.2601	.2677
South Atlantic.....	3	5	6	53.40	53.50	.1876	.1779
North Central.....	7	21	25	56.62	57.28	.2050	.1967
South Central.....	2	4	7	58.25	59.00	.1574	.1435
Western.....	5	7	5	45.71	46.40	.3661	.3750
United States.....	30	69	80	52.42	53.45	.2429	.2356
Turners, male:							
South Atlantic.....	2	4	5	52.50	52.80	.3209	.3222
North Central.....	7	10	10	53.00	53.20	.3793	.3821
South Central.....	4	6	7	57.00	56.57	.2389	.2619
United States.....	13	20	22	54.40	54.18	.3255	.3302

PAPER AND WOOD PULP.

Back tenders, male:							
North Atlantic.....	17	209	218	63.19	64.41	\$0.1770	\$0.1755
North Central.....	8	56	55	69.70	69.65	.1471	.1538
United States.....	25	265	273	64.57	65.47	.1706	.1711
Beaters, male:							
North Atlantic.....	18	442	453	59.10	60.37	.1790	.1811
North Central.....	10	132	132	68.90	68.91	.1499	.1538
United States.....	28	574	585	61.36	62.30	.1724	.1749
Black ash burners, male:							
North Atlantic.....	3	29	29	62.07	64.55	.2058	.1945
Bleachers, male:							
North Atlantic.....	7	122	112	55.92	58.13	.1927	.1899
North Central.....	5	23	23	63.65	63.65	.1579	.1608
United States.....	12	145	135	57.14	59.07	.1872	.1849

TABLE II.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

PAPER AND WOOD PULP—Continued.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Calendriers, male:							
North Atlantic.....	8	148	185	55.36	54.25	\$0.1966	\$0.2010
North Central.....	7	54	53	64.00	63.62	.1625	.1717
United States.....	15	202	238	57.67	56.34	.1875	.1945
Calendriers, female:							
North Atlantic.....	2	29	26	55.00	55.00	.1398	.1434
Color mixers, male:							
North Atlantic.....	1	11	15	48.00	48.00	.2371	.2313
North Central.....	1	7	8	60.00	60.00	.1829	.1836
United States.....	2	18	23	52.67	52.17	.2160	.2147
Cutters, male:							
North Atlantic.....	10	115	109	50.59	51.70	.2125	.2050
North Central.....	8	28	29	56.14	56.28	.1731	.1758
United States.....	18	143	138	51.68	52.67	.2048	.1989
Cutters, female:							
North Atlantic.....	11	180	182	54.97	55.05	.1059	.1086
North Central.....	9	47	49	59.94	59.94	.0864	.0938
United States.....	20	227	231	56.00	56.09	.1019	.1055
Enamelers, male:							
North Atlantic.....	2	62	68	48.58	48.53	.2280	.2264
North Central.....	1	10	10	60.00	60.00	.1800	.1790
United States.....	3	72	78	50.17	50.00	.2214	.2204
Finishers, male:							
North Atlantic.....	15	138	133	60.07	60.33	.1797	.1829
North Central.....	10	46	52	59.96	59.96	.1763	.1783
United States.....	25	184	185	60.04	60.23	.1788	.1816
Finishers, female:							
North Atlantic.....	6	66	68	57.30	56.88	.1325	.1333
North Central.....	5	33	33	59.91	59.91	.0974	.1065
United States.....	11	99	101	58.17	57.87	.1208	.1245
Laborers, male:							
North Atlantic.....	18	1,003	1,093	60.48	60.36	.1522	.1549
North Central.....	10	276	260	59.34	60.71	.1492	.1469
United States.....	28	1,279	1,353	60.23	60.43	.1516	.1534
Machine tenders, male:							
North Atlantic.....	18	229	223	59.43	60.93	.2704	.2764
North Central.....	9	48	50	69.42	69.48	.2580	.2678
United States.....	27	277	273	61.16	62.50	.2683	.2749
Press tenders, male:							
North Atlantic.....	5	73	64	66.93	67.14	.1560	.1553
North Central.....	3	12	12	61.92	61.92	.1346	.1346
United States.....	8	85	76	66.22	66.32	.1530	.1520
Pulp grinders, male:							
North Atlantic.....	7	140	127	60.93	68.49	.1682	.1579
North Central.....	3	27	28	71.85	71.86	.1369	.1411
United States.....	10	167	155	62.69	69.10	.1631	.1549
Rag sorters, male:							
North Atlantic.....	2	70	40	52.97	57.00	.1770	.1065
Rag sorters, female:							
North Atlantic.....	6	225	214	52.30	54.17	.1041	.0985
North Central.....	5	58	60	59.38	59.40	.0932	.0989
United States.....	11	283	274	53.82	55.31	.1019	.0996

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

PAPER AND WOOD PULP—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Wood cookers, male:							
North Atlantic.....	6	50	51	60.78	62.53	\$0.1891	\$0.1993
North Central.....	3	11	11	71.73	71.73	.1586	.1654
United States.....	9	61	62	62.75	64.16	.1836	.1933
Wood preparers, male:							
North Atlantic.....	9	247	260	61.17	61.89	.1619	.1616
North Central.....	3	84	87	59.94	59.94	.1446	.1512
United States.....	12	331	347	60.85	61.40	.1575	.1590

PLANING MILL.

Carpenters, male:							
North Atlantic.....	26	454	448	54.28	54.54	\$0.3048	\$0.3003
South Atlantic.....	12	276	313	55.24	55.02	.2797	.2936
North Central.....	39	530	538	60.57	56.61	.2672	.2680
South Central.....	11	113	124	56.39	56.37	.2571	.2594
Western.....	5	65	73	52.80	51.78	.3765	.3844
United States.....	93	1,438	1,496	55.41	55.40	.2856	.2880
Framers, male:							
North Atlantic.....	5	41	51	54.29	54.96	.2230	.2413
South Atlantic.....	5	27	34	55.85	55.62	.2862	.2913
North Central.....	23	182	178	58.33	58.62	.2268	.2266
United States.....	33	250	263	57.40	57.32	.2326	.2378
Glaziers, male:							
North Atlantic.....	11	24	31	56.04	55.61	.2391	.2351
South Atlantic.....	6	12	13	56.25	56.23	.2534	.2735
North Central.....	16	27	30	58.81	58.73	.2067	.2114
South Central.....	5	9	12	56.67	57.00	.2080	.2264
Western.....	2	6	7	60.00	60.00	.2583	.2464
United States.....	40	78	93	57.41	57.22	.2280	.2326
Laborers, male:							
North Atlantic.....	25	224	248	57.27	57.39	.1672	.1685
South Atlantic.....	11	359	425	57.13	56.81	.1132	.1203
North Central.....	33	905	970	59.30	59.37	.1514	.1550
South Central.....	17	762	743	63.63	63.68	.1381	.1391
Western.....	5	130	150	58.06	57.04	.2077	.2082
United States.....	91	2,380	2,536	60.10	59.87	.1460	.1490
Machine woodworkers, male:							
North Atlantic.....	29	289	296	55.56	55.43	.2719	.2780
South Atlantic.....	13	174	196	56.74	56.70	.2373	.2500
North Central.....	46	820	826	58.52	58.56	.2044	.2040
South Central.....	18	210	206	60.63	60.64	.1952	.2050
Western.....	6	80	105	55.50	56.46	.3181	.2832
United States.....	112	1,573	1,629	57.91	57.89	.2250	.2284
Sawyers, band, male:							
North Atlantic.....	14	20	21	56.95	56.81	.2750	.2698
South Atlantic.....	8	13	17	56.54	56.06	.2668	.2835
North Central.....	24	49	53	59.00	59.15	.2074	.2080
South Central.....	9	27	27	63.11	63.11	.1898	.1989
Western.....	4	5	6	52.80	52.00	.3908	.4058
United States.....	59	114	124	59.06	58.85	.2300	.2364
Sawyers, circular, male:							
North Atlantic.....	23	99	102	55.09	55.25	.2656	.2647
South Atlantic.....	10	33	35	56.42	56.14	.2108	.2303
North Central.....	30	168	190	58.61	58.77	.2188	.2216
South Central.....	5	19	20	56.21	56.40	.2225	.2417
Western.....	5	28	28	55.71	56.14	.3138	.3103
United States.....	73	347	375	57.03	57.24	.2404	.2418

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

PLANING MILL—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Sawyers, jig, male:							
North Atlantic.....	6	7	6	55.57	55.83	\$0.2826	\$0.2880
South Atlantic.....	6	6	6	55.83	55.83	.2273	.2291
North Central.....	11	40	40	59.73	59.70	.1615	.1622
United States.....	23	53	52	58.74	58.81	.1849	.1844
Sawyers, not specified, male:							
North Atlantic.....	4	5	5	58.80	58.80	.2520	.2540
South Atlantic.....	5	19	15	54.63	54.80	.2459	.2473
North Central.....	12	19	21	54.05	53.67	.2068	.2759
United States.....	21	43	41	54.86	54.71	.2559	.2627

POTTERY.

Dippers, male:							
North Atlantic.....	6	8	8	46.00	46.00	\$0.5367	\$0.5704
Jigger men, male:							
North Atlantic.....	6	42	44	52.57	52.55	.4373	.4502
Kiln firemen, male:							
North Atlantic.....	6	54	61	58.30	59.90	.2395	.2312
Kiln men, male:							
North Atlantic.....	7	61	60	46.84	46.87	.3902	.3959
Mold makers, male:							
North Atlantic.....	7	17	20	53.76	53.95	.3441	.3397
Pressers, male:							
North Atlantic.....	7	149	140	53.60	53.73	.4260	.4184
Sagger makers, male:							
North Atlantic.....	6	13	13	51.23	50.85	.4699	.5102
Setters out, male:							
North Atlantic.....	6	13	13	47.08	47.08	.4111	.4100

PRINTING AND PUBLISHING, BOOK AND JOB.

Bookbinders, male:							
North Atlantic.....	22	178	198	53.79	53.62	\$0.3387	\$0.3410
South Atlantic.....	16	64	61	54.81	54.51	.2870	.2930
North Central.....	40	460	480	53.90	53.79	.3091	.3095
South Central.....	17	74	77	53.99	53.70	.3116	.3146
Western.....	15	67	75	52.36	52.19	.3624	.3660
United States.....	110	843	891	53.83	53.66	.3181	.3206
Compositors, male:							
North Atlantic.....	47	778	833	52.24	52.10	.3450	.3531
South Atlantic.....	23	202	203	54.30	53.86	.3027	.3061
North Central.....	46	652	652	53.96	53.91	.3268	.3338
South Central.....	18	171	184	53.95	53.34	.3225	.3308
Western.....	18	144	149	50.06	49.42	.4079	.4184
United States.....	152	1,947	2,021	53.02	52.78	.3372	.3449
Compositors, female:							
North Atlantic.....	9	86	85	53.84	53.67	.1861	.2016
North Central.....	9	13	23	54.00	54.00	.2618	.2608
United States.....	18	99	108	53.86	53.74	.1961	.2161
Electrotypers, male:							
North Atlantic.....	10	76	75	53.99	52.43	.3784	.3822
North Central.....	9	72	72	53.53	52.94	.3352	.3300
Western.....	3	8	7	52.38	52.14	.4209	.4677
United States.....	22	156	154	53.60	52.66	.3606	.3645

TABLE 1.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

PRINTING AND PUBLISHING, BOOK AND JOB—Continued.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Linotype operators, male:							
North Atlantic.....	17	103	108	51.40	52.35	\$0.4156	\$0.4177
South Atlantic.....	11	27	27	52.74	52.74	.3791	.3914
North Central.....	18	102	105	48.52	48.50	.4065	.5105
South Central.....	5	12	16	49.50	48.00	.4454	.4684
Western.....	7	29	34	47.69	47.47	.5557	.5821
United States.....	58	273	290	49.98	50.18	.4584	.4710
Linotype operators, female:							
North Atlantic.....	5	5	6	50.40	51.00	.2683	.2608
North Central.....	2	5	4	50.20	53.50	.4782	.4293
United States.....	7	10	10	50.30	52.00	.3733	.3318
Press feeders, male:							
North Atlantic.....	36	357	345	53.41	53.20	.2012	.2051
South Atlantic.....	18	91	100	54.92	54.44	.1445	.1519
North Central.....	44	494	512	53.93	53.88	.1869	.1894
South Central.....	16	107	107	53.64	53.65	.1540	.1506
Western.....	18	87	100	50.31	49.68	.1930	.2088
United States.....	132	1,136	1,164	53.54	53.35	.1853	.1807
Press feeders, female:							
North Atlantic.....	11	126	128	53.65	54.49	.1180	.1235
South Atlantic.....	10	31	29	54.77	53.97	.1062	.1071
North Central.....	10	87	74	53.80	53.80	.1481	.1503
South Central.....	7	21	29	54.24	54.14	.1127	.1051
United States.....	38	265	260	53.88	54.20	.1261	.1272
Pressmen, male:							
North Atlantic.....	48	365	379	53.58	53.58	.3357	.3408
South Atlantic.....	23	73	74	54.82	54.34	.2780	.2849
North Central.....	46	329	316	53.98	53.97	.3426	.3422
South Central.....	18	61	60	54.23	53.73	.2967	.3081
Western.....	18	55	68	50.47	49.25	.3764	.3958
United States.....	153	883	897	53.68	53.46	.3334	.3387
Proof readers, male:							
North Atlantic.....	23	78	85	52.62	52.80	.3704	.3739
South Atlantic.....	7	13	13	54.69	54.69	.3201	.3244
North Central.....	16	29	30	53.76	53.77	.3701	.3753
South Central.....	3	3	3	54.00	53.00	.3858	.3936
Western.....	7	10	10	50.40	49.20	.4167	.4411
United States.....	56	133	141	52.93	52.93	.3692	.3748
Proof readers, female:							
North Atlantic.....	11	21	21	51.38	51.38	.3019	.3083
South Atlantic.....	3	5	5	54.00	54.00	.1500	.1537
North Central.....	11	20	21	53.35	53.33	.3261	.3110
South Central.....	7	12	12	55.42	53.92	.1618	.1692
Western.....	4	5	5	50.40	50.40	.3125	.3370
United States.....	36	63	64	52.90	52.63	.2717	.2733
Sewers, book, female:							
North Atlantic.....	19	90	80	53.80	53.80	.1395	.1376
South Atlantic.....	10	51	58	54.92	54.21	.1009	.1044
North Central.....	29	188	189	53.90	53.92	.1228	.1291
South Central.....	10	57	58	54.21	53.79	.1085	.1124
Western.....	11	65	69	51.45	51.32	.1385	.1467
United States.....	79	451	463	53.68	53.53	.1241	.1282
Stereotypers, male:							
North Atlantic.....	4	15	15	54.00	47.33	.4333	.4694
South Atlantic.....	5	9	10	53.44	52.80	.3112	.3298
Western.....	1	8	8	53.50	53.50	.4147	.4147
United States.....	10	32	33	53.72	50.48	.3943	.4139

TABLE 1.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

PRINTING AND PUBLISHING, BOOK AND JOB—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Stitchers, book, female:							
North Atlantic.....	16	44	54	53.52	53.56	\$0.1155	\$0.1131
South Atlantic.....	4	26	32	54.96	54.00	.0818	.0845
North Central.....	11	70	64	53.96	53.95	.1128	.1052
South Central.....	6	21	24	53.71	53.75	.1149	.1155
Western.....	11	24	29	49.96	49.90	.1608	.1637
United States.....	48	185	203	53.45	53.25	.1156	.1136

PRINTING AND PUBLISHING, NEWSPAPER.

Compositors, male:							
North Atlantic.....	47	843	948	46.73	46.67	\$0.4996	\$0.5079
South Atlantic.....	22	224	242	48.32	47.57	.4454	.4585
North Central.....	44	579	598	48.28	48.06	.4865	.4961
South Central.....	18	184	207	49.04	48.81	.4855	.4965
Western.....	17	183	198	47.79	47.38	.5673	.5964
United States.....	148	2,013	2,193	47.66	47.42	.4947	.5061
Compositors, female:							
North Atlantic.....	5	12	14	48.58	50.36	.3758	.3904
Linotype operators, male:							
North Atlantic.....	46	744	765	46.98	46.93	.5469	.5451
South Atlantic.....	22	227	249	44.83	44.53	.5497	.5603
North Central.....	44	582	621	48.03	47.86	.5100	.5063
South Central.....	18	166	197	46.71	47.16	.6215	.6253
Western.....	17	196	220	46.31	46.00	.6236	.6429
United States.....	147	1,915	2,052	46.95	46.84	.5503	.5534
Linotype operators, female:							
North Atlantic.....	11	29	28	49.03	49.39	.3628	.3560
North Central.....	2	2	5	48.00	48.00	.4490	.4305
United States.....	13	31	33	48.97	49.18	.3683	.3673
Pressmen, male:							
North Atlantic.....	47	376	361	46.32	46.68	.4500	.4589
South Atlantic.....	21	71	75	48.45	48.72	.3467	.3470
North Central.....	43	225	246	50.36	50.54	.3752	.3860
South Central.....	15	39	41	52.41	52.20	.3833	.4032
Western.....	17	77	88	50.51	50.33	.4085	.4134
United States.....	143	788	811	48.38	48.72	.4120	.4187
Stereotypers, male:							
North Atlantic.....	43	228	232	45.97	45.37	.5200	.5206
South Atlantic.....	19	51	53	46.20	46.72	.4126	.4157
North Central.....	40	168	179	49.07	48.68	.4191	.4389
South Central.....	14	30	30	47.87	47.87	.3967	.4064
Western.....	17	53	54	49.81	49.33	.4420	.4531
United States.....	133	530	548	47.47	47.11	.4629	.4747

SHIPBUILDING.

Blacksmiths, male:							
North Atlantic.....	15	137	122	55.68	55.76	\$0.2903	\$0.2804
South Atlantic.....	6	95	80	58.47	57.50	.2711	.2745
North Central.....	3	23	30	57.96	58.43	.2887	.2858
South Central.....	3	61	54	54.00	54.00	.3562	.3549
Western.....							
United States.....	27	316	286	56.36	56.20	.2971	.2972

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

SHIPBUILDING—Continued.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Boiler makers, male:							
North Atlantic.....	9	347	301	55.11	55.07	\$0.2731	\$0.2827
South Atlantic.....	6	238	261	58.42	57.84	.2553	.2523
North Central.....	2	48	64	59.48	59.64	.2977	.2891
Western.....	3	52	49	54.58	55.22	.3491	.3552
United States.....	20	685	675	56.53	56.59	.2744	.2768
Calkers, iron, male:							
North Atlantic.....	8	364	335	57.03	58.34	.2697	.2701
South Atlantic.....	2	26	37	55.38	54.75	.2342	.2274
North Central.....	3	45	57	57.20	57.16	.2915	.2991
Western.....	2	137	64	54.00	54.00	.3165	.3101
United States.....	15	572	493	56.24	57.37	.2810	.2755
Calkers, wood, male:							
North Atlantic.....	16	343	283	53.46	52.71	.3401	.3462
South Atlantic.....	3	52	70	54.58	54.86	.2771	.2774
North Central.....	2	96	99	59.68	59.27	.3005	.3012
Western.....	2	28	27	54.00	54.00	.5481	.5517
United States.....	23	519	479	54.76	54.46	.3377	.3384
Carpenters, male:							
North Atlantic.....	21	1,169	1,101	54.55	54.59	.3057	.3110
South Atlantic.....	8	403	432	58.02	57.36	.2661	.2639
North Central.....	3	45	63	55.33	55.71	.2993	.2885
Western.....	4	125	202	55.01	58.08	.3972	.3695
United States.....	36	1,742	1,858	55.41	55.77	.3029	.3075
Drillers, male:							
North Atlantic.....	9	321	486	57.66	58.58	.2293	.2256
South Atlantic.....	4	70	96	56.11	55.80	.1774	.1731
North Central.....	3	71	152	58.18	55.80	.1810	.2209
Western.....	2	53	118	54.00	54.00	.2779	.2444
United States.....	18	515	852	57.15	57.14	.2206	.2214
Fitters, male:							
North Atlantic.....	10	405	359	56.53	56.49	.2460	.2511
South Atlantic.....	5	334	438	58.87	58.84	.2447	.2385
North Central.....	3	79	118	57.11	56.64	.2835	.2612
Western.....	2	105	94	54.00	54.00	.3544	.3520
United States.....	20	923	1,009	57.14	57.29	.2611	.2562
Joiners, male:							
North Atlantic.....	13	494	370	55.57	56.51	.2893	.2963
South Atlantic.....	6	336	490	57.05	56.67	.2642	.2621
North Central.....	2	65	67	57.51	59.46	.3079	.3094
Western.....	4	108	189	54.44	54.25	.3595	.3657
United States.....	25	1,003	1,116	56.07	56.38	.2897	.2935
Laborers male:							
North Atlantic.....	18	1,116	1,106	55.55	55.82	.1622	.1630
South Atlantic.....	8	1,118	1,125	58.36	57.93	.1273	.1352
North Central.....	3	682	984	57.84	56.52	.1577	.1561
Western.....	4	153	234	55.06	57.08	.2224	.2134
United States.....	33	3,069	3,449	57.06	56.79	.1515	.1554
Machinists, male:							
North Atlantic.....	12	991	936	55.97	56.63	.2616	.2602
South Atlantic.....	6	752	623	58.72	58.43	.2967	.2658
North Central.....	3	202	187	58.70	59.10	.2806	.2793
Western.....	3	430	539	54.07	54.07	.3493	.3359
United States.....	24	2,375	2,285	56.73	56.72	.2807	.2836

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

SHIPBUILDING—Concluded.

Occupation and geographical division.	Num- ber of estab- lish- ments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Molders, iron, male:							
North Atlantic.....	3	82	77	57.94	58.32	\$0.2871	\$0.2875
South Atlantic.....	3	116	113	57.92	57.96	.2705	.2693
North Central.....	2	74	123	60.00	60.00	.2870	.2931
Western.....	2	75	36	54.00	54.00	.3090	.3099
United States.....	10	347	349	57.52	58.35	.2993	.2921
Painters, male:							
North Atlantic.....	12	371	280	56.13	55.68	.2706	.2712
South Atlantic.....	6	290	407	55.74	56.29	.2357	.2354
North Central.....	2	30	58	59.00	58.66	.1881	.1844
United States.....	20	691	745	56.09	56.25	.2524	.2449
Pattern makers, male:							
North Atlantic.....	11	100	99	56.74	57.39	.3157	.3157
South Atlantic.....	5	70	63	57.86	57.25	.2970	.2920
North Central.....	3	20	24	58.95	59.08	.3100	.3152
Western.....	2	26	21	54.00	54.00	.4134	.4162
United States.....	21	216	207	56.98	57.20	.3211	.3186
Riggers, male:							
North Atlantic.....	9	243	286	57.12	57.91	.1999	.2007
South Atlantic.....	5	53	62	55.92	56.35	.2223	.2216
North Central.....	2	15	15	54.80	54.80	.2187	.2050
Western.....	4	90	126	54.13	54.14	.3409	.3203
United States.....	20	401	489	56.20	56.65	.2352	.2343
Riveters, male:							
North Atlantic.....	9	286	377	55.99	56.98	.2948	.3022
South Atlantic.....	4	362	383	59.12	59.18	.2224	.2253
North Central.....	2	67	60	52.93	51.80	.3071	.3515
Western.....	2	234	32	54.00	54.00	.3201	.2981
United States.....	17	949	852	56.48	57.49	.2743	.2710
Sawyers, circular, male:							
North Atlantic.....	10	20	19	55.20	55.42	.2545	.2547
South Atlantic.....	2	5	5	54.00	54.00	.2148	.2148
Western.....	2	2	2	54.00	54.00	.4010	.4010
United States.....	14	27	26	54.89	55.04	.2580	.2583
Spar makers, male:							
North Atlantic.....	3	10	11	57.00	56.27	.2822	.2866

SILK GOODS.

Beamers, male:							
North Atlantic.....	6	16	21	56.44	56.57	\$0.2002	\$0.1907
Doublers, female:							
North Atlantic.....	10	170	208	57.69	57.80	.0944	.0915
Dyers, male:							
North Atlantic.....	6	1,266	1,327	55.58	55.59	.1947	.1961
Loom fixers, male:							
North Atlantic.....	12	143	143	58.13	58.17	.2645	.2656
Pickers, male: (a)							
North Atlantic.....	3	4	5	60.00	59.60	.2393	.2271
Pickers, female: (a)							
North Atlantic.....	11	299	310	57.78	58.49	.1203	.1190
Quillers, female:							
North Atlantic.....	14	303	438	57.67	57.62	.0912	.0907
Spinners, male:							
North Atlantic.....	6	186	208	57.85	58.17	.0807	.0836
Twisters-in, male:							
North Atlantic.....	8	108	118	58.25	58.19	.2303	.2339
Warpers, male:							
North Atlantic.....	5	60	54	57.85	56.91	.2216	.2407

(a) Does not include warp pickers.

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

SILK GOODS—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Warpers, female:							
North Atlantic.....	12	503	555	58.19	58.16	\$0.1596	\$0.1573
Weavers, male:							
North Atlantic.....	9	834	918	57.86	57.91	.1947	.1998
Weavers, female:							
North Atlantic.....	12	1,934	2,091	57.93	57.93	.1473	.1498
Weavers, ribbon, male:							
North Atlantic.....	4	271	337	56.05	56.29	.2410	.2393
Weavers, ribbon, female:							
North Atlantic.....	4	161	220	58.03	58.25	.1648	.1704
Winders, female:							
North Atlantic.....	14	577	616	57.82	57.92	.1063	.1077

SLAUGHTERING AND MEAT PACKING.

Back skinners, cattle, male:							
North Central.....	12	33	26	54.55	54.08	\$0.4348	\$0.4385
Dry salters, male:							
North Central.....	14	377	459	60.00	60.00	.1879	.1806
Gutters, cattle, male:							
North Central.....	12	30	26	54.83	55.08	.2593	.2619
Gutters, hog, male:							
North Central.....	14	36	35	49.06	48.29	.2977	.2810
Headers, cattle, male:							
North Central.....	11	33	29	54.54	54.69	.3250	.3345
Headers, hog, male:							
North Central.....	15	16	16	54.44	54.44	.2706	.2691
Laborers, male:							
North Central.....	15	10,592	10,664	60.00	60.00	.1755	.1687
Picklers, male:							
North Central.....	14	569	513	60.00	60.00	.1878	.1792
Rump skinners, cattle, male:							
North Central.....	10	23	20	56.09	56.15	.3949	.3842
Scrapers, hog, male:							
North Central.....	13	61	63	53.89	52.94	.2264	.2236
Side skinners, cattle, male:							
North Central.....	12	75	66	54.33	54.56	.4842	.4871
Splitters, cattle, male:							
North Central.....	13	51	44	54.69	55.36	.4747	.4693
Splitters, hog, male:							
North Central.....	15	35	35	53.89	53.40	.3052	.3090
Stickers, cattle, male:							
North Central.....	11	18	17	57.17	57.00	.3139	.3132
Stickers, hog, male:							
North Central.....	15	16	16	54.44	54.44	.2854	.2896

STREETS AND SEWERS, CONTRACT WORK.

Laborers, male:							
North Atlantic.....	36	4,748	4,651	58.89	58.46	\$0.1633	\$0.1670
South Atlantic.....	16	1,056	1,100	55.46	55.02	.1517	.1567
North Central.....	41	4,438	4,187	57.74	57.52	.1946	.2004
South Central.....	13	1,592	1,348	57.99	57.88	.1535	.1560
Western.....	14	1,326	1,443	50.76	51.64	.2481	.2463
United States.....	120	13,100	12,729	57.29	57.02	.1804	.1852

STREETS AND SEWERS, MUNICIPAL WORK.

Laborers, male:							
North Atlantic.....	21	7,708	8,269	49.93	49.73	\$0.2284	\$0.2246
South Atlantic.....	10	1,913	2,361	50.42	50.15	.1795	.1824
North Central.....	22	7,382	7,917	48.92	48.99	.3055	.3099
South Central.....	9	943	1,013	52.09	51.94	.1691	.1706
Western.....	8	804	910	48.00	48.00	.2639	.2620
United States.....	70	18,750	20,470	49.61	49.52	.2145	.2130

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Continued.

TOBACCO, CIGARS.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Bunch makers, hand, male:							
North Atlantic.....	4	62	70	54.00	54.93	\$0.2290	\$0.2293
South Atlantic.....	2	40	61	51.83	52.46	.1874	.1725
North Central.....	5	25	35	49.36	50.74	.2559	.2322
United States.....	11	127	166	52.40	53.14	.2211	.2090
Bunch makers, hand, female:							
North Atlantic.....	8	527	525	57.39	57.37	.1694	.1670
South Atlantic.....	3	116	144	56.39	54.88	.1096	.1322
North Central.....	6	130	117	50.77	50.60	.1945	.2115
South Central.....	2	157	149	58.93	58.59	.1009	.0984
United States.....	19	930	935	56.60	56.33	.1539	.1563
Bunch makers, machine, female:							
North Atlantic.....	6	372	352	56.17	55.42	.1284	.1224
North Central.....	3	185	168	53.75	52.50	.1272	.1404
United States.....	9	557	520	55.37	54.48	.1280	.1282
Cigar makers, male:							
North Atlantic.....	13	678	709	49.21	48.95	.3249	.3375
South Atlantic.....	8	1,803	2,066	59.79	59.88	.2917	.2884
North Central.....	13	386	353	47.48	47.35	.2981	.3185
United States.....	34	2,867	3,128	55.63	55.99	.3004	.3030
Cigar rollers, hand, male:							
North Atlantic.....	3	260	240	53.17	53.06	.2339	.2301
South Atlantic.....	2	66	57	50.97	52.77	.1922	.1885
North Central.....	4	84	94	49.93	49.94	.2099	.2168
United States.....	9	410	391	52.15	52.27	.2222	.2208
Cigar rollers, hand, female:							
North Atlantic.....	8	470	447	55.71	55.39	.1492	.1574
South Atlantic.....	3	289	259	53.84	55.16	.1239	.1363
North Central.....	7	248	272	52.34	50.85	.1648	.1809
United States.....	18	1,007	978	54.35	54.07	.1458	.1584
Cigar rollers, machine, female:							
North Atlantic.....	7	1,048	1,160	57.66	57.46	.1448	.1411
South Atlantic.....	2	304	228	53.84	53.64	.1114	.1257
South Central.....	1	390	273	60.00	60.00	.0925	.0905
United States.....	10	1,652	1,661	57.38	57.36	.1292	.1307
Packers, male:							
North Atlantic.....	16	115	110	48.74	48.59	.3996	.4265
South Atlantic.....	7	107	96	50.33	50.25	.6193	.6133
North Central.....	12	48	44	48.46	48.55	.3612	.3642
United States.....	35	270	250	52.89	52.68	.4798	.4873
Packers, female:							
North Atlantic.....	8	294	355	55.23	55.54	.1314	.1316
South Atlantic.....	2	42	40	54.00	54.00	.1390	.1441
North Central.....	5	57	73	49.77	48.48	.1462	.1431
South Central.....	2	42	40	59.67	59.30	.1151	.1177
United States.....	17	435	508	54.83	54.70	.1325	.1331
Stemmers, male:							
North Atlantic.....	6	69	74	52.64	52.51	.1341	.1340
South Atlantic.....	4	44	33	52.70	49.30	.1022	.1413
North Central.....	3	8	12	47.50	47.33	.1875	.1602
United States.....	13	121	119	52.32	51.10	.1260	.1387

TABLE I.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, BY OCCUPATIONS AND GEOGRAPHICAL DIVISIONS—Concluded.

TOBACCO, CIGARS—Concluded.

Occupation and geographical division.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Stemmers, female:							
North Atlantic.....	19	798	826	54.82	54.59	\$0.1035	\$0.1037
South Atlantic.....	9	214	249	58.86	58.51	.1195	.1140
North Central.....	16	292	318	51.60	51.28	.0868	.0868
South Central.....	2	30	44	56.27	54.59	.0795	.0786
United States.....	46	1,334	1,437	54.79	54.54	.1045	.1037

WOOLEN AND WORSTED GOODS.

Burlers, female:							
North Atlantic.....	23	666	645	58.00	58.46	\$0.1011	\$0.1060
Carders, male:							
North Atlantic.....	24	248	241	57.80	58.63	.1158	.1176
Carders, female:							
North Atlantic.....	4	23	14	59.09	60.00	.0894	.0899
Card strippers, male:							
North Atlantic.....	13	72	74	58.49	58.31	.1291	.1306
Combers, male:							
North Atlantic.....	6	120	124	59.06	58.90	.1206	.1226
Combers, female:							
North Atlantic.....	5	100	124	57.40	57.04	.0967	.0920
Dyers, male:							
North Atlantic.....	24	474	485	58.71	59.30	.1320	.1325
Loom fixers, male:							
North Atlantic.....	26	252	269	58.23	58.58	.2356	.2363
Spinners, frame, female:							
North Atlantic.....	8	526	493	58.30	58.25	.1024	.1036
Spinners, mule, male:							
North Atlantic.....	22	383	375	58.61	58.51	.1625	.1901
Weavers, male:							
North Atlantic.....	26	1,708	1,719	58.55	58.78	.1771	.1880
Weavers, female:							
North Atlantic.....	27	2,020	2,223	57.65	58.19	.1518	.1568

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS.

[For explanation of relative figures, see page 10.]

AGRICULTURAL IMPLEMENTS.

BLACKSMITHS, Male.				FITTERS, Male.			
[Data from 15 establishments 1890-1904; 24, 1905.]				[Data from 1 establishment 1890-1903; 10, 1904; 19, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	90.5	100.8	98.4	1890.....	111.1	100.0	92.7
1891.....	91.3	100.8	101.3	1891.....	88.9	100.0	90.3
1892.....	104.0	100.8	105.6	1892.....	88.9	100.0	98.6
1893.....	104.8	100.8	115.4	1893.....	100.0	100.0	100.0
1894.....	98.4	96.4	100.0	1894.....	100.0	100.0	100.7
1895.....	96.0	100.8	90.9	1895.....	88.9	100.0	102.7
1896.....	100.8	100.8	95.4	1896.....	77.8	100.0	121.5
1897.....	97.6	97.5	95.8	1897.....	100.0	100.0	93.4
1898.....	110.3	100.8	101.7	1898.....	122.2	100.0	96.4
1899.....	107.1	100.4	95.2	1899.....	111.1	100.0	103.8
1900.....	113.5	100.5	96.5	1900.....	111.1	100.0	102.1
1901.....	114.3	100.4	95.3	1901.....	122.2	100.0	129.6
1902.....	106.3	100.4	100.2	1902.....	111.1	100.0	135.3
1903.....	112.7	99.2	104.7	1903.....	100.0	100.0	134.8
1904.....	119.5	100.0	106.2	1904.....	80.0	96.3	144.7
1905.....	136.9	99.9	109.6	1905.....	85.7	96.2	152.7

GRINDERS, Male.				MACHINE WOODWORKERS, Male.			
[Data from 1 establishment 1890-1903; 8, 1904; 17, 1905.]				[Data from 11 establishments 1890-1903; 16, 1904; 23, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	47.1	100.0	84.8	1890.....	93.0	100.3	101.5
1891.....	70.6	100.0	99.4	1891.....	89.8	100.2	102.8
1892.....	82.4	100.0	84.9	1892.....	95.3	100.2	101.8
1893.....	105.9	100.0	79.4	1893.....	110.9	100.2	104.9
1894.....	94.1	100.0	100.8	1894.....	86.7	100.1	99.2
1895.....	105.9	100.0	99.2	1895.....	98.4	100.2	96.2
1896.....	94.1	100.0	107.9	1896.....	90.6	100.2	96.4
1897.....	94.1	100.0	120.8	1897.....	91.4	98.3	99.1
1898.....	164.7	100.0	113.0	1898.....	112.5	100.3	99.7
1899.....	158.8	100.0	109.6	1899.....	128.9	100.1	98.3
1900.....	176.5	100.0	114.5	1900.....	128.1	100.1	104.0
1901.....	147.1	100.0	105.6	1901.....	126.6	100.1	103.8
1902.....	70.6	100.0	108.4	1902.....	130.5	100.2	110.8
1903.....	70.6	100.0	123.0	1903.....	151.6	99.7	108.9
1904.....	69.9	97.8	136.9	1904.....	112.7	98.4	114.2
1905.....	78.0	97.8	138.8	1905.....	140.4	98.3	117.8

MACHINISTS, Male.				MOLDERS, IRON, Male.			
[Data from 15 establishments 1890-1903; 14, 1904; 21, 1905.]				[Data from 9 establishments 1890-1903; 12, 1904; 21, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	97.9	100.5	100.3	1890.....	86.4	100.9	102.3
1891.....	98.8	100.4	102.1	1891.....	88.9	100.9	103.6
1892.....	98.5	100.4	104.0	1892.....	104.0	101.0	106.3
1893.....	107.1	100.4	106.6	1893.....	108.1	100.9	107.9
1894.....	93.8	97.8	94.5	1894.....	87.4	99.1	96.0
1895.....	94.1	100.5	93.7	1895.....	95.5	100.7	93.3
1896.....	100.0	100.4	96.4	1896.....	90.9	98.3	98.1
1897.....	91.7	99.1	96.6	1897.....	91.9	97.0	94.0
1898.....	105.6	100.4	101.3	1898.....	117.2	100.4	96.7
1899.....	113.0	100.1	104.6	1899.....	127.8	100.7	101.6
1900.....	123.9	100.1	106.2	1900.....	132.8	100.9	109.2
1901.....	128.6	100.1	104.8	1901.....	126.8	100.8	108.6
1902.....	124.5	100.0	107.7	1902.....	121.7	100.8	119.8
1903.....	146.6	97.8	111.9	1903.....	141.4	100.1	120.4
1904.....	122.3	93.9	120.4	1904.....	129.2	98.2	121.2
1905.....	140.3	93.0	119.8	1905.....	132.3	98.1	117.2

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

AGRICULTURAL IMPLEMENTS—Concluded.

PAINTERS, Male.				PATTERN MAKERS, Male.			
[Data for employees from 12 establishments 1890-1903. Data for hours and wages from 12 establishments 1890-1894; 13, 1895-1903. Data from 15 establishments 1904; 23, 1905.]				[Data from 13 establishments 1890-1903; 12, 1904; 22, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	87.4	99.9	97.6	1890.....	76.2	100.1	99.4
1891.....	91.6	99.9	108.8	1891.....	85.7	100.1	98.4
1892.....	89.9	100.1	106.5	1892.....	97.6	100.0	104.7
1893.....	93.3	100.1	104.6	1893.....	100.5	100.0	101.4
1894.....	113.4	100.2	91.8	1894.....	92.9	100.1	95.5
1895.....	100.8	100.0	97.1	1895.....	104.8	100.0	98.1
1896.....	101.7	99.8	99.4	1896.....	100.0	99.9	101.1
1897.....	98.3	99.8	97.8	1897.....	97.6	100.0	97.4
1898.....	117.6	100.1	96.3	1898.....	116.7	99.8	103.2
1899.....	103.4	100.1	99.9	1899.....	114.3	99.9	101.0
1900.....	97.5	100.0	109.6	1900.....	161.9	99.9	104.0
1901.....	126.9	100.1	107.4	1901.....	154.8	99.9	105.6
1902.....	126.1	100.2	110.2	1902.....	135.7	100.0	109.7
1903.....	121.0	100.0	120.8	1903.....	154.8	98.6	112.8
1904.....	105.6	95.9	118.5	1904.....	128.7	98.2	118.0
1905.....	120.0	95.4	121.3	1905.....	135.9	98.0	118.1

BAKERY, BREAD.

BAKERS, FIRST HANDS, Male.				BAKERS, SECOND HANDS, Male.			
[Data from 103 establishments 1890-1903; 114, 1904; 108, 1905.]				[Data from 103 establishments 1890-1903; 114, 1904; 108, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	95.1	100.7	99.4	1890.....	92.4	100.0	99.0
1891.....	94.5	100.8	99.6	1891.....	93.3	100.1	99.6
1892.....	96.7	100.8	99.8	1892.....	93.6	100.3	99.8
1893.....	97.3	100.7	98.8	1893.....	94.8	100.2	99.1
1894.....	99.5	100.1	98.3	1894.....	97.6	99.6	99.0
1895.....	100.5	99.9	99.0	1895.....	98.8	99.7	98.9
1896.....	101.6	99.9	99.3	1896.....	100.9	99.7	100.0
1897.....	102.2	99.7	100.1	1897.....	102.4	102.6	100.4
1898.....	104.9	99.2	101.5	1898.....	112.4	99.3	101.0
1899.....	107.7	98.2	104.3	1899.....	113.3	98.4	103.1
1900.....	108.2	96.8	107.4	1900.....	118.5	97.0	106.7
1901.....	114.3	96.2	109.9	1901.....	121.5	97.2	109.1
1902.....	117.6	95.8	112.8	1902.....	134.8	96.6	114.1
1903.....	119.2	94.4	116.4	1903.....	128.5	94.2	118.2
1904.....	126.2	94.0	118.5	1904.....	128.5	94.0	120.8
1905.....	129.5	92.5	121.0	1905.....	128.0	93.2	121.9

BAKERS, THIRD HANDS, Male.				BAKERS, NOT SPECIFIED, Male.			
[Data from 63 establishments 1890-1904; 69, 1905.]				[Data from 20 establishments 1890-1903; 26, 1904; 42, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	93.6	100.4	99.6	1890.....	92.2	102.2	99.3
1891.....	96.3	101.0	100.2	1891.....	94.3	101.1	100.3
1892.....	96.8	101.5	100.1	1892.....	97.1	101.1	101.3
1893.....	94.7	100.3	100.9	1893.....	97.3	100.9	102.1
1894.....	97.9	100.9	98.4	1894.....	93.0	101.1	97.9
1895.....	102.7	99.5	99.1	1895.....	98.7	100.4	97.8
1896.....	104.3	99.4	99.6	1896.....	101.7	99.3	99.4
1897.....	102.7	99.9	98.8	1897.....	103.1	98.7	100.0
1898.....	104.3	99.6	100.3	1898.....	110.1	98.3	100.0
1899.....	100.9	97.5	103.0	1899.....	111.3	96.9	102.0
1900.....	113.8	96.6	110.6	1900.....	115.3	97.0	101.7
1901.....	127.7	95.1	112.9	1901.....	120.3	96.5	103.2
1902.....	138.3	94.6	120.3	1902.....	130.8	96.2	108.5
1903.....	158.0	91.8	131.2	1903.....	129.1	95.3	109.9
1904.....	180.8	92.0	134.8	1904.....	134.7	94.5	110.4
1905.....	190.5	90.7	139.1	1905.....	144.5	93.7	111.9

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

BLACKSMITHING AND HORSESHOEING.

BLACKSMITHS, Male.				HORSESHOERS, FITTERS, Male.			
[Data from 59 establishments 1890-1903; 48, 1904; 33, 1905.]				[Data from 33 establishments 1890-1903; 35, 1904; 41, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	100.0	100.2	100.1	1890.....	97.1	102.1	97.0
1891.....	102.8	100.2	100.3	1891.....	94.3	102.3	96.7
1892.....	102.8	100.0	101.0	1892.....	100.0	102.1	97.4
1893.....	103.5	99.9	100.7	1893.....	100.0	99.5	99.8
1894.....	94.4	99.9	98.6	1894.....	102.9	99.2	100.2
1895.....	95.1	100.0	98.2	1895.....	100.0	99.0	100.2
1896.....	101.4	99.9	98.5	1896.....	101.4	98.9	101.6
1897.....	97.2	100.0	99.9	1897.....	101.4	98.8	102.6
1898.....	102.8	99.9	101.1	1898.....	102.9	98.9	102.6
1899.....	102.1	100.1	101.5	1899.....	101.4	99.0	101.8
1900.....	105.6	99.4	102.5	1900.....	101.4	98.5	103.1
1901.....	109.2	99.3	104.1	1901.....	107.1	98.1	104.9
1902.....	107.7	98.3	107.6	1902.....	101.4	97.8	104.2
1903.....	107.7	97.9	109.9	1903.....	107.1	97.3	106.6
1904.....	101.1	97.4	108.9	1904.....	105.3	96.8	109.3
1905.....	102.2	97.2	108.6	1905.....	106.7	96.1	113.0

HORSESHOERS, FLOOR MEN, Male.				HORSESHOERS, FORGEMEN, Male.			
[Data from 109 establishments 1890-1903; 127, 1904; 134, 1905.]				[Data from 69 establishments 1890-1903; 95, 1904; 100, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	105.7	102.0	98.1	1890.....	102.9	101.3	98.6
1891.....	101.9	101.9	97.6	1891.....	102.9	101.1	98.5
1892.....	103.4	101.9	97.8	1892.....	102.1	101.1	98.5
1893.....	101.1	100.8	98.4	1893.....	100.7	100.9	97.9
1894.....	100.4	99.3	101.1	1894.....	99.3	100.0	98.3
1895.....	96.6	99.2	99.9	1895.....	97.9	99.8	98.8
1896.....	97.7	99.2	100.5	1896.....	98.6	99.7	100.1
1897.....	95.5	98.9	101.1	1897.....	97.1	99.3	101.2
1898.....	98.9	98.6	102.3	1898.....	100.0	98.9	103.0
1899.....	99.6	98.2	103.1	1899.....	99.3	97.9	104.8
1900.....	101.5	97.7	104.9	1900.....	97.1	96.9	107.9
1901.....	102.3	96.7	106.6	1901.....	99.3	96.6	109.8
1902.....	100.4	96.0	107.8	1902.....	97.9	95.5	111.6
1903.....	100.0	95.6	113.4	1903.....	96.4	94.9	114.8
1904.....	98.3	95.1	116.8	1904.....	96.4	94.7	115.8
1905.....	101.4	94.5	119.9	1905.....	94.4	94.2	117.7

HORSESHOERS, NOT SPECIFIED, Male.			
[Data from 62 establishments 1890-1903; 27, 1904; 14, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	103.3	100.0	100.9
1891.....	102.5	100.1	100.5
1892.....	104.1	100.1	99.5
1893.....	100.0	100.0	99.2
1894.....	96.7	100.0	97.4
1895.....	93.4	99.9	98.4
1896.....	94.3	99.9	99.0
1897.....	98.4	100.0	99.7

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
1898.....	100.8	100.1	102.1
1899.....	104.1	99.9	103.3
1900.....	106.6	99.3	103.9
1901.....	107.4	97.7	107.6
1902.....	100.0	97.5	112.0
1903.....	98.4	96.4	116.2
1904.....	100.3	93.7	123.4
1905.....	104.7	93.9	121.6

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

BOOTS AND SHOES.

CLOSERS-ON, Female.				CUTTERS, OUTSOLE, Male.			
[Data for employees from 15 establishments 1890-1903. Data for hours and wages from 15 establishments 1890: 17, 1891, 1892; 18, 1893; 20, 1894; 24, 1895; 25, 1896; 26, 1897; 28, 1898; 32, 1899; 33, 1900, 1901; 34, 1902, 1903. Data from 40 establishments 1904; 44, 1905.]				[Data for employees from 26 establishments 1890-1903. Data for hours and wages from 26 establishments 1890: 27, 1891; 28, 1892; 29, 1893, 1894; 30, 1895, 1896; 31, 1897; 32, 1898, 1899; 33, 1900-1903. Data from 37 establishments 1904; 35, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	87.3	100.3	90.7	1890.....	88.7	100.2	102.0
1891.....	83.1	100.5	96.8	1891.....	94.8	101.7	99.5
1892.....	87.3	99.9	98.3	1892.....	97.4	100.2	99.1
1893.....	90.1	100.1	100.4	1893.....	98.3	99.8	100.1
1894.....	108.5	100.1	103.6	1894.....	87.8	99.7	96.8
1895.....	100.0	99.6	98.4	1895.....	93.9	99.8	100.2
1896.....	111.3	99.7	103.3	1896.....	104.3	99.7	98.8
1897.....	114.1	99.7	105.2	1897.....	117.4	99.6	101.2
1898.....	107.0	100.4	100.1	1898.....	107.8	99.7	101.4
1899.....	116.9	99.7	102.9	1899.....	113.0	99.7	100.6
1900.....	111.3	99.5	102.4	1900.....	114.8	99.8	102.2
1901.....	116.9	99.3	105.5	1901.....	121.7	99.6	100.5
1902.....	114.4	99.4	103.4	1902.....	125.2	99.6	103.5
1903.....	129.6	98.8	108.4	1903.....	140.0	98.2	106.0
1904.....	131.8	98.9	106.1	1904.....	133.9	98.6	109.2
1905.....	122.2	98.8	109.0	1905.....	139.6	98.5	109.9

CUTTERS, UPPER, Male.				EDGE TRIMMERS, Male.			
[Data for employees from 22 establishments 1890-1903. Data for hours and wages from 22 establishments 1890: 23, 1891; 25, 1892; 27, 1893; 28, 1894; 31, 1895, 1896; 32, 1897; 33, 1898; 37, 1899; 39, 1900-1903. Data from 42 establishments 1904; 45, 1905.]				[Data for employees from 18 establishments 1890-1903. Data for hours and wages from 18 establishments 1890: 20, 1891; 21, 1892; 23, 1893; 24, 1894; 27, 1895, 1896; 28, 1897; 30, 1898; 33, 1899; 34, 1900; 35, 1901-1903. Data from 41 establishments 1904; 45, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	76.0	100.1	99.9	1890.....	74.2	100.8	97.7
1891.....	82.0	100.2	99.4	1891.....	76.4	100.8	97.2
1892.....	94.7	100.2	99.8	1892.....	86.5	101.0	99.2
1893.....	95.2	100.2	100.4	1893.....	96.6	100.8	105.1
1894.....	96.3	100.0	98.0	1894.....	102.2	99.8	99.2
1895.....	99.8	99.8	100.0	1895.....	100.0	99.5	103.1
1896.....	105.5	100.0	99.1	1896.....	112.4	99.7	99.2
1897.....	113.6	99.9	101.0	1897.....	114.6	99.9	100.4
1898.....	118.0	100.0	99.7	1898.....	111.2	98.5	99.9
1899.....	119.6	99.7	102.8	1899.....	120.2	99.2	99.0
1900.....	129.1	99.7	103.3	1900.....	123.6	98.2	105.3
1901.....	142.3	99.8	102.6	1901.....	138.2	99.2	105.0
1902.....	136.5	98.4	107.4	1902.....	134.8	97.3	110.1
1903.....	144.3	96.6	110.8	1903.....	140.4	95.8	114.7
1904.....	154.5	96.9	114.2	1904.....	151.2	95.7	116.4
1905.....	162.1	96.2	117.3	1905.....	162.4	95.0	118.7

GOODYEAR STITCHERS, Male.				HEEL TRIMMERS, Male.			
[Data for employees from 10 establishments 1890-1903. Data for hours and wages from 10 establishments 1890: 12, 1891; 13, 1892; 14, 1893; 15, 1894; 19, 1895, 1896; 21, 1897; 22, 1898; 25, 1899; 27, 1900, 1901; 29, 1902; 30, 1903. Data from 34 establishments 1904; 40, 1905.]				[Data for employees from 15 establishments 1890-1903. Data for hours and wages from 15 establishments 1890: 17, 1891; 18, 1892; 20, 1893; 21, 1894; 25, 1895-1897; 26, 1898; 28, 1899; 29, 1900; 30, 1901-1903. Data from 39 establishments 1904; 44, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	91.7	101.3	88.6	1890.....	77.1	101.6	91.9
1891.....	86.1	100.6	93.9	1891.....	85.7	100.7	90.8
1892.....	86.1	100.5	96.5	1892.....	94.3	100.7	97.0
1893.....	97.2	100.7	96.4	1893.....	100.0	100.4	104.7
1894.....	91.7	99.5	99.6	1894.....	100.0	99.7	102.3
1895.....	94.4	99.8	100.9	1895.....	108.6	99.4	103.6
1896.....	105.6	99.6	98.6	1896.....	108.6	99.4	101.0
1897.....	108.3	99.7	108.4	1897.....	111.4	99.3	102.3
1898.....	105.6	99.5	106.5	1898.....	105.7	99.6	105.0
1899.....	130.6	98.9	110.4	1899.....	97.1	99.1	101.5
1900.....	150.0	98.8	115.6	1900.....	102.9	97.7	104.8
1901.....	155.6	98.7	117.3	1901.....	100.0	97.6	105.5
1902.....	138.3	95.1	121.7	1902.....	88.6	96.7	106.9
1903.....	161.1	94.4	131.0	1903.....	85.7	96.2	115.7
1904.....	181.1	94.6	133.2	1904.....	93.8	95.7	122.0
1905.....	203.8	94.9	130.2	1905.....	97.3	96.1	125.1

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

BOOTS AND SHOES—Concluded.

LASTERS, MACHINE, Male.				McKAY STITCHERS, Male.			
[Data for employees from 10 establishments 1890-1903. Data for hours and wages from 10 establishments 1890, 1891; 12, 1892; 14, 1893; 15, 1894; 16, 1895; 20, 1896; 23, 1897; 25, 1898; 30, 1899; 31, 1900; 32, 1901; 33, 1902, 1903. Data from 35 establishments 1904; 44, 1905.]				[Data for employees from 14 establishments 1890-1903. Data for hours and wages from 14 establishments 1890; 16, 1891; 17, 1892; 19, 1893; 20, 1894-1896; 21, 1897; 23, 1898; 24, 1899; 25, 1900; 26, 1901-1903. Data from 28 establishments 1904; 31, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	52.8	99.5	97.3	1890.....	77.8	101.6	95.0
1891.....	67.7	100.2	98.1	1891.....	80.0	101.5	94.1
1892.....	77.2	100.0	101.2	1892.....	104.4	100.4	95.3
1893.....	86.6	99.8	96.1	1893.....	104.4	100.4	104.4
1894.....	102.4	100.6	101.3	1894.....	102.2	99.8	100.6
1895.....	117.3	100.5	101.1	1895.....	111.1	100.2	104.3
1896.....	126.0	100.5	103.9	1896.....	117.8	99.8	98.9
1897.....	120.5	100.0	97.6	1897.....	104.4	99.1	101.2
1898.....	100.0	98.6	103.9	1898.....	102.2	98.5	102.6
1899.....	138.6	100.3	100.6	1899.....	100.0	98.6	99.6
1900.....	148.8	98.8	103.0	1900.....	97.8	96.4	99.9
1901.....	134.6	99.9	106.6	1901.....	106.7	98.0	99.1
1902.....	126.8	98.5	114.4	1902.....	97.8	96.7	100.7
1903.....	148.8	97.8	120.1	1903.....	86.7	96.6	103.6
1904.....	171.9	98.0	125.4	1904.....	86.7	96.3	103.5
1905.....	188.1	98.0	128.0	1905.....	93.2	95.8	102.2

TWEEDS, Male.				VAMPEERS, Male.			
[Data for employees from 13 establishments 1890-1903. Data for hours and wages from 13 establishments 1890, 1891; 14, 1892; 15, 1893, 1894; 16, 1895, 1896; 17, 1897-1899; 19, 1900-1903. Data from 28 establishments 1904; 33, 1905.]				[Data for employees from 1 establishment 1890-1903. Data for hours and wages from 1 establishment 1890; 2, 1891, 1892; 4, 1893, 1894; 5, 1894, 1895, 1897, 1898; 7, 1899, 1900; 9, 1901; 11, 1902; 10, 1903. Data from 16 establishments 1904; 19, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	64.2	100.1	101.4	1890.....	50.0	95.8	112.3
1891.....	83.2	100.7	97.4	1891.....	50.0	101.9	97.3
1892.....	78.8	99.4	98.8	1892.....	50.0	102.4	92.4
1893.....	108.0	99.0	100.4	1893.....	100.0	100.2	95.6
1894.....	102.9	99.7	101.4	1894.....	100.0	99.7	89.4
1895.....	107.3	100.9	100.9	1895.....	100.0	99.8	90.7
1896.....	121.9	100.3	101.6	1896.....	100.0	100.0	101.5
1897.....	114.6	99.9	97.9	1897.....	100.0	100.2	111.4
1898.....	113.1	100.3	97.7	1898.....	150.0	100.3	103.0
1899.....	102.9	99.7	102.6	1899.....	150.0	99.5	106.7
1900.....	105.1	99.6	107.9	1900.....	150.0	100.5	110.6
1901.....	108.8	99.8	105.5	1901.....	150.0	100.1	106.0
1902.....	91.2	98.2	110.0	1902.....	150.0	99.4	114.7
1903.....	94.2	96.0	123.4	1903.....	150.0	93.9	127.1
1904.....	93.6	95.9	123.3	1904.....	226.2	96.3	124.4
1905.....	106.0	95.9	126.0	1905.....	277.1	96.5	120.4

VAMPEERS, Female.			
[Data for employees from 16 establishments 1890-1903. Data for hours and wages from 16 establishments 1890; 18, 1891; 19, 1892; 20, 1893; 22, 1894; 26, 1895, 1896; 27, 1897; 29, 1898; 33, 1899; 34, 1900, 1901; 35, 1902; 33, 1903. Data from 40 establishments 1904; 45, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	102.6	100.4	99.9
1891.....	91.4	100.2	93.7
1892.....	94.0	100.4	98.3
1893.....	92.2	100.1	101.6
1894.....	94.8	99.9	102.3
1895.....	102.6	99.9	103.2
1896.....	101.7	99.6	102.0
1897.....	105.2	99.5	100.8
1898.....	103.4	100.1	99.4
1899.....	113.8	99.8	98.5
1900.....	121.6	99.7	103.0
1901.....	130.2	99.6	103.9
1902.....	140.5	99.2	104.5
1903.....	153.4	98.5	110.5
1904.....	157.4	98.5	110.7
1905.....	155.4	98.6	115.4

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

BRICK.

BRICK-MACHINE TENDERS, Male.				KILN BURNERS, Male.			
[Data from 20 establishments 1890-1903; 36, 1904; 40, 1905.]				[Data from 22 establishments 1890-1903; 37, 1904; 48, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	99.2	100.0	99.9	1890.....	100.0	100.2	100.6
1891.....	100.8	99.9	99.6	1891.....	100.0	100.2	101.2
1892.....	100.0	99.8	103.0	1892.....	99.0	100.4	100.5
1893.....	98.4	100.0	101.7	1893.....	101.0	100.0	100.1
1894.....	99.2	100.0	98.4	1894.....	96.0	100.3	95.2
1895.....	99.2	100.0	97.8	1895.....	100.0	99.5	99.1
1896.....	99.2	100.1	98.6	1896.....	98.0	99.9	98.2
1897.....	99.2	100.1	97.3	1897.....	102.0	99.2	102.0
1898.....	100.8	100.1	100.6	1898.....	102.0	99.8	104.2
1899.....	102.4	100.1	103.2	1899.....	98.0	100.6	101.1
1900.....	103.2	100.2	104.6	1900.....	103.0	99.6	104.8
1901.....	101.6	100.3	106.6	1901.....	106.0	99.0	109.9
1902.....	104.0	100.2	111.3	1902.....	108.0	99.3	113.8
1903.....	100.5	99.5	112.9	1903.....	109.0	98.6	115.9
1904.....	108.0	99.5	113.5	1904.....	113.4	98.2	117.7
1905.....	107.6	99.9	112.5	1905.....	115.7	98.2	118.8

KILN SETTERS, Male.				LABORERS, Male.			
[Data from 24 establishments 1890-1903; 36, 1904; 44, 1905.]				[Data from 11 establishments 1890-1903; 38, 1904; 47, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	97.0	99.7	99.2	1890.....	93.8	99.3	104.0
1891.....	90.1	99.8	99.7	1891.....	97.4	99.8	102.2
1892.....	95.0	99.8	104.9	1892.....	90.0	99.8	102.2
1893.....	102.0	99.8	99.8	1893.....	102.0	100.3	100.8
1894.....	98.0	100.1	99.5	1894.....	103.0	100.3	99.4
1895.....	98.0	100.3	97.8	1895.....	101.6	100.3	97.1
1896.....	102.0	99.9	97.9	1896.....	98.0	99.8	98.8
1897.....	103.0	100.1	96.5	1897.....	98.0	99.8	98.8
1898.....	102.0	100.2	101.9	1898.....	100.0	100.4	97.0
1899.....	108.9	100.2	102.7	1899.....	107.2	100.1	99.3
1900.....	105.9	100.3	102.9	1900.....	104.3	99.6	102.0
1901.....	106.9	100.5	101.2	1901.....	105.6	99.6	103.1
1902.....	108.9	100.4	106.9	1902.....	120.3	99.2	109.2
1903.....	113.9	99.6	107.4	1903.....	119.0	98.5	112.9
1904.....	108.6	99.4	107.5	1904.....	122.8	98.4	111.3
1905.....	111.7	99.9	107.4	1905.....	120.0	98.4	114.9

OFFBEARERS, Male.

[Data from 19 establishments 1890-1903; 29, 1904; 40, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	101.3	100.0	101.5
1891.....	97.4	99.7	104.3
1892.....	105.3	100.0	104.9
1893.....	98.0	99.8	106.7
1894.....	96.0	100.0	101.0
1895.....	99.3	100.0	98.3
1896.....	100.0	100.1	95.7
1897.....	98.0	100.1	94.1

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

BUILDING TRADES.

BRICKLAYERS, Male.

[Data from 212 establishments 1890-1903; 229, 1904; 209, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	101.5	103.2	98.4
1891.....	112.3	102.4	99.5
1892.....	114.1	101.2	101.0
1893.....	104.1	100.1	101.1
1894.....	93.1	100.8	98.6
1895.....	88.2	100.0	99.5
1896.....	91.8	99.9	98.9
1897.....	92.1	99.1	99.4
1898.....	95.3	97.9	98.7
1899.....	107.3	95.5	104.8
1900.....	105.1	95.6	106.5
1901.....	118.1	94.3	112.0
1902.....	109.8	93.6	118.0
1903.....	116.2	92.7	124.7
1904.....	111.2	92.1	127.3
1905.....	111.8	92.0	132.1

CARPENTERS, Male.

[Data from 227 establishments 1890-1903; 242, 1904; 213, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	104.8	102.0	98.6
1891.....	110.2	101.3	99.2
1892.....	114.3	100.5	102.7
1893.....	97.8	100.7	99.7
1894.....	89.3	100.7	97.9
1895.....	88.8	100.3	97.8
1896.....	95.7	99.7	99.6
1897.....	95.4	99.0	100.0
1898.....	95.5	98.5	101.4
1899.....	108.2	97.4	103.2
1900.....	112.1	94.5	110.8
1901.....	117.8	92.5	115.9
1902.....	122.1	90.6	123.7
1903.....	116.4	90.2	130.6
1904.....	108.6	89.9	129.9
1905.....	108.3	90.1	133.6

CORNICE MAKERS, Male.

[Data from 40 establishments 1890-1903; 55, 1904; 86, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	106.2	104.4	95.0
1891.....	105.4	101.3	97.1
1892.....	133.5	98.4	99.2
1893.....	99.8	100.6	98.8
1894.....	80.5	100.3	97.6
1895.....	85.3	100.1	98.6
1896.....	93.6	99.5	101.4
1897.....	90.1	99.0	102.9
1898.....	96.9	98.6	103.0
1899.....	108.7	97.9	106.4
1900.....	103.5	96.1	113.5
1901.....	104.1	94.5	115.6
1902.....	114.7	92.5	125.1
1903.....	117.2	91.7	134.3
1904.....	114.8	90.2	137.7
1905.....	127.1	90.3	140.8

GAS FITTERS, Male.

[Data from 64 establishments 1890-1903; 79, 1904; 77, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	99.4	103.5	95.5
1891.....	100.0	102.6	96.3
1892.....	105.6	100.6	98.9
1893.....	93.2	99.8	99.7
1894.....	96.3	99.7	99.1
1895.....	90.1	99.7	99.3
1896.....	100.6	99.4	100.0
1897.....	100.0	98.4	101.6
1898.....	106.8	99.1	103.7
1899.....	110.5	97.3	105.8
1900.....	108.0	96.4	110.0
1901.....	109.3	95.4	114.1
1902.....	114.8	92.6	123.3
1903.....	114.8	90.9	130.5
1904.....	114.4	89.4	139.1
1905.....	118.4	89.3	138.9

HOD CARRIERS, Male.

[Data from 250 establishments 1890-1903; 262, 1904; 255, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	102.0	102.3	97.0
1891.....	109.5	101.8	96.5
1892.....	115.4	100.4	99.4
1893.....	105.0	100.1	99.8
1894.....	87.2	100.8	98.9
1895.....	90.6	99.9	99.6
1896.....	93.3	99.7	100.3
1897.....	94.2	99.7	99.7
1898.....	92.4	98.9	100.6
1899.....	110.4	96.5	108.1
1900.....	104.1	96.5	107.3
1901.....	120.2	95.6	109.3
1902.....	119.3	94.1	114.9
1903.....	123.5	93.0	122.9
1904.....	124.3	92.8	123.8
1905.....	128.1	93.0	124.7

INSIDE WIRE MEN, Male.

[Data from 40 establishments 1890-1903; 56, 1904; 94, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	74.2	102.8	89.6
1891.....	78.1	102.6	89.1
1892.....	94.5	98.8	91.6
1893.....	91.1	101.2	97.9
1894.....	93.7	101.5	96.1
1895.....	93.3	101.2	100.0
1896.....	102.7	99.3	104.5
1897.....	120.4	97.5	107.6
1898.....	122.4	97.2	112.1
1899.....	119.8	98.0	111.7
1900.....	146.7	94.7	120.7
1901.....	149.4	94.5	119.6
1902.....	176.6	92.8	129.7
1903.....	194.1	89.6	140.6
1904.....	185.8	88.2	143.5
1905.....	212.1	87.2	150.0

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

BUILDING TRADES—Continued.

LABORERS, Male.				LATHERS, Male.			
[Data from 146 establishments 1890-1903; 172, 1904; 192, 1905.]				[Data from 19 establishments 1890-1903; 39, 1904; 67, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	114.8	100.3	102.7	1890.....	85.2	105.4	94.0
1891.....	100.0	100.3	103.0	1891.....	81.5	105.4	93.8
1892.....	107.9	100.3	103.5	1892.....	108.3	104.9	95.9
1893.....	101.3	100.0	101.8	1893.....	91.7	104.8	93.8
1894.....	92.6	99.9	96.7	1894.....	90.7	104.7	93.8
1895.....	85.1	100.1	98.2	1895.....	110.2	103.7	97.9
1896.....	90.1	100.1	96.5	1896.....	105.6	93.2	106.3
1897.....	89.7	99.9	98.5	1897.....	99.1	93.2	106.2
1898.....	101.4	99.3	99.9	1898.....	119.4	92.3	109.5
1899.....	108.1	99.8	99.3	1899.....	109.3	92.3	108.7
1900.....	118.3	99.0	99.6	1900.....	121.3	87.3	110.8
1901.....	104.2	98.5	108.0	1901.....	121.3	87.9	111.2
1902.....	119.2	96.3	112.0	1902.....	135.2	87.7	115.1
1903.....	113.9	95.8	114.2	1903.....	114.8	88.0	111.4
1904.....	96.8	95.8	114.3	1904.....	135.4	87.4	116.7
1905.....	109.1	95.8	114.4	1905.....	132.9	87.2	119.3

PAINTERS, Male.				PAPER HANGERS, Male.			
[Data from 293 establishments 1890-1903; 298, 1904; 296, 1905.]				[Data from 93 establishments 1890-1903; 103, 1904; 116, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	96.3	102.6	97.0	1890.....	94.1	101.4	98.5
1891.....	100.9	101.9	98.2	1891.....	94.9	100.9	99.3
1892.....	105.5	101.1	99.4	1892.....	100.6	101.0	99.4
1893.....	99.7	100.1	101.2	1893.....	93.5	100.8	98.9
1894.....	93.9	100.4	99.1	1894.....	92.1	100.4	98.4
1895.....	94.1	100.1	98.4	1895.....	93.5	100.5	98.5
1896.....	99.2	99.6	99.2	1896.....	99.8	99.8	99.5
1897.....	101.7	99.0	100.5	1897.....	105.7	99.0	101.1
1898.....	101.3	98.1	102.3	1898.....	108.5	98.4	102.9
1899.....	107.5	97.1	104.7	1899.....	117.8	97.9	103.7
1900.....	111.2	94.6	110.5	1900.....	119.2	96.1	108.4
1901.....	116.5	92.6	114.7	1901.....	127.9	92.8	113.4
1902.....	115.7	91.5	119.5	1902.....	124.2	91.4	118.8
1903.....	109.4	90.8	124.9	1903.....	129.4	90.2	125.7
1904.....	109.9	90.4	127.9	1904.....	117.1	90.3	126.8
1905.....	111.5	90.5	129.5	1905.....	129.1	89.6	133.5

PLASTERERS, Male.				PLUMBERS, Male.			
[Data from 146 establishments 1890-1903; 152, 1904; 164, 1905.]				[Data from 221 establishments 1890-1903; 232, 1904; 207, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	100.2	103.2	98.4	1890.....	99.1	102.1	97.4
1891.....	106.0	101.6	99.2	1891.....	100.3	101.6	98.1
1892.....	110.5	100.5	102.6	1892.....	103.4	101.2	98.7
1893.....	102.4	100.3	100.5	1893.....	99.8	100.2	99.9
1894.....	92.0	100.3	97.9	1894.....	94.4	100.1	98.8
1895.....	92.0	99.6	98.1	1895.....	94.3	99.7	99.7
1896.....	97.7	99.4	99.7	1896.....	98.9	99.3	100.4
1897.....	94.4	100.3	97.6	1897.....	99.1	98.9	101.2
1898.....	97.0	98.6	99.4	1898.....	104.6	98.7	102.3
1899.....	108.1	96.1	105.4	1899.....	106.2	98.2	103.6
1900.....	111.5	94.1	109.5	1900.....	110.4	96.6	107.1
1901.....	105.2	93.1	114.3	1901.....	118.3	95.4	110.6
1902.....	120.8	91.2	123.7	1902.....	117.0	93.0	117.6
1903.....	112.7	90.8	131.8	1903.....	115.7	91.9	124.5
1904.....	110.5	90.5	133.8	1904.....	117.2	91.3	128.3
1905.....	123.8	90.1	139.6	1905.....	124.5	91.1	131.2

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

BUILDING TRADES—Continued.

ROOFERS, GRAVEL AND TAR, Male.				ROOFERS, SLATE AND TILE, Male.			
[Data from 9 establishments 1890-1903; 35, 1904; 72, 1905.]				[Data from 40 establishments 1890-1903; 41, 1904; 71, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	82.9	100.4	97.1	1890.....	110.3	100.8	101.2
1891.....	89.5	100.2	101.0	1891.....	107.7	100.9	99.8
1892.....	92.1	101.3	103.6	1892.....	105.9	101.0	100.9
1893.....	136.8	98.1	107.6	1893.....	100.7	100.5	100.3
1894.....	76.3	100.0	98.0	1894.....	90.4	100.7	97.5
1895.....	90.8	101.1	92.5	1895.....	91.5	100.7	98.1
1896.....	101.3	99.9	96.5	1896.....	97.8	99.9	98.4
1897.....	100.0	99.7	100.9	1897.....	100.4	98.9	98.6
1898.....	110.5	99.6	100.1	1898.....	95.9	99.0	101.3
1899.....	122.4	99.6	102.9	1899.....	100.7	97.7	103.8
1900.....	105.3	95.9	114.5	1900.....	98.2	95.2	109.5
1901.....	109.2	96.2	115.9	1901.....	95.6	94.8	112.0
1902.....	94.7	95.8	114.4	1902.....	100.4	91.7	118.5
1903.....	97.4	98.6	113.1	1903.....	95.2	91.0	128.3
1904.....	118.5	98.2	110.6	1904.....	82.5	91.0	130.6
1905.....	123.9	98.7	110.3	1905.....	81.5	91.0	130.9

ROOFERS, TIN, Male.				STEAM FITTERS, Male.			
[Data from 94 establishments 1890-1903; 100, 1904; 118, 1905.]				[Data from 73 establishments 1890-1903; 86, 1904; 112, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	96.6	102.0	97.0	1890.....	93.0	102.6	95.9
1891.....	102.5	101.2	99.1	1891.....	90.9	101.9	96.2
1892.....	100.1	101.1	99.1	1892.....	99.5	101.3	99.4
1893.....	105.2	100.4	100.0	1893.....	107.9	101.6	97.4
1894.....	94.9	100.7	97.8	1894.....	96.6	99.4	99.2
1895.....	93.7	100.3	98.8	1895.....	95.3	99.8	98.2
1896.....	101.0	99.6	100.1	1896.....	99.8	99.2	100.5
1897.....	96.7	99.0	100.4	1897.....	105.8	98.7	101.5
1898.....	102.3	98.3	102.5	1898.....	101.8	98.6	104.3
1899.....	107.0	97.4	105.2	1899.....	108.4	96.9	107.4
1900.....	105.5	95.6	108.7	1900.....	106.8	96.0	108.1
1901.....	109.1	93.8	111.9	1901.....	115.2	94.0	115.1
1902.....	115.0	91.4	119.7	1902.....	129.3	92.4	120.2
1903.....	110.3	91.4	122.2	1903.....	129.0	89.0	127.3
1904.....	109.8	90.7	122.9	1904.....	128.6	88.9	131.6
1905.....	111.3	90.6	126.5	1905.....	139.4	89.1	133.3

STONE MASONS, Male.				STONE SETTERS, Male.			
[Data from 115 establishments 1890-1903; 110, 1904; 102, 1905.]				[Data from 27 establishments 1890-1903; 40, 1904; 57, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	106.9	101.3	102.9	1890.....	88.1	103.9	92.3
1891.....	115.2	101.3	103.2	1891.....	88.1	103.4	92.9
1892.....	111.1	101.2	101.5	1892.....	90.1	100.1	100.2
1893.....	101.4	100.6	100.7	1893.....	101.8	99.7	99.9
1894.....	90.2	100.9	95.1	1894.....	96.3	99.2	100.8
1895.....	90.1	100.4	96.4	1895.....	108.3	98.8	102.0
1896.....	93.5	100.3	98.1	1896.....	106.4	99.4	100.8
1897.....	89.8	98.6	100.3	1897.....	98.2	98.9	103.0
1898.....	105.2	97.4	99.0	1898.....	99.1	98.4	104.3
1899.....	97.1	98.0	102.8	1899.....	111.9	98.2	103.9
1900.....	105.5	96.4	104.7	1900.....	122.9	96.3	107.5
1901.....	104.6	95.2	110.8	1901.....	133.9	95.4	113.1
1902.....	107.7	93.2	119.0	1902.....	130.3	95.4	110.9
1903.....	121.1	92.0	126.6	1903.....	122.9	94.8	116.2
1904.....	117.7	91.4	129.4	1904.....	118.5	94.8	117.9
1905.....	116.8	91.3	129.5	1905.....	127.3	95.0	121.4

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

BUILDING TRADES—Concluded.

STRUCTURAL IRON WORKERS, Male.

[Data for employees from 19 establishments 1890-1903. Data for hours and wages from 19 establishments 1890-1892; 20, 1893-1903. Data from 37 establishments 1904; 59, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	1898.....	122.1	97.8	105.3
1890.....	77.7	102.9	93.6	1899.....	115.5	100.5	108.8
1891.....	98.2	101.8	98.0	1900.....	142.2	98.0	120.4
1892.....	107.3	99.3	100.6	1901.....	195.5	96.7	138.4
1893.....	98.8	100.1	100.9	1902.....	228.2	91.6	155.9
1894.....	74.2	101.9	93.5	1903.....	206.6	92.2	159.8
1895.....	79.5	100.1	97.7	1904.....	205.5	90.6	171.4
1896.....	115.5	98.5	97.5	1905.....	194.3	90.1	171.8
1897.....	111.9	97.0	104.1				

CANDY.

CANDY MAKERS, Male.

[Data from 7 establishments 1890-1903; 22, 1904; 37, 1905.]

Average 1890-99..	100.0	100.0	100.0
1890.....	108.2	100.0	98.2
1891.....	104.9	99.9	98.1
1892.....	103.3	100.1	98.8
1893.....	101.6	100.1	95.7
1894.....	95.1	100.0	96.2
1895.....	100.0	100.0	100.8
1896.....	95.1	100.0	103.7
1897.....	103.3	100.0	99.3
1898.....	90.2	100.0	104.6
1899.....	91.8	99.9	104.8
1900.....	90.2	99.9	98.7
1901.....	78.7	99.8	104.9
1902.....	82.0	99.8	103.4
1903.....	83.6	99.9	103.4
1904.....	84.4	99.9	105.6
1905.....	88.7	99.9	107.4

DIPPERS, Female.

[Data from 5 establishments 1890-1903; 22, 1904; 33, 1905.]

Average 1890-99..	100.0	100.0	100.0
1890.....	117.1	98.6	106.3
1891.....	112.8	98.6	108.5
1892.....	103.0	99.8	100.8
1893.....	106.7	99.8	100.7
1894.....	96.3	99.8	101.3
1895.....	91.5	100.5	97.0
1896.....	94.5	100.6	96.2
1897.....	95.1	100.6	96.8
1898.....	89.0	100.7	96.4
1899.....	93.9	100.8	96.6
1900.....	103.0	100.8	99.2
1901.....	103.7	100.8	114.0
1902.....	101.8	100.8	113.5
1903.....	122.6	100.4	115.2
1904.....	130.7	100.6	118.7
1905.....	138.0	100.2	121.1

CARPETS.

BURLERS, Female.

[Data from 6 establishments 1890-1903; 8, 1904, 1905.]

Average 1890-99..	100.0	100.0	100.0
1890.....	97.9	100.7	97.4
1891.....	95.9	100.7	99.8
1892.....	90.7	100.7	104.2
1893.....	111.3	99.3	101.6
1894.....	75.3	100.3	94.0
1895.....	103.1	99.5	97.0
1896.....	112.4	99.5	102.7
1897.....	95.9	99.9	97.4
1898.....	105.2	99.7	108.5
1899.....	107.2	99.8	97.3
1900.....	112.4	99.7	105.4
1901.....	117.5	99.7	111.1
1902.....	119.6	99.7	112.9
1903.....	123.7	99.5	123.4
1904.....	134.9	99.1	105.5
1905.....	129.7	99.0	112.6

DYERS, Male.

[Data from 6 establishments.]

Average 1890-99..	100.0	100.0	100.0
1890.....	120.4	101.4	98.4
1891.....	109.7	101.4	99.3
1892.....	94.6	100.9	102.0
1893.....	105.4	99.4	101.3
1894.....	90.3	99.9	95.9
1895.....	100.5	99.4	95.9
1896.....	98.4	99.3	100.7
1897.....	88.7	99.6	103.3
1898.....	93.0	99.4	101.5
1899.....	96.2	99.4	101.5
1900.....	97.3	99.3	100.9
1901.....	96.8	99.4	100.9
1902.....	110.8	99.2	100.2
1903.....	115.6	99.3	104.8
1904.....	114.5	99.0	102.8
1905.....	111.8	99.0	104.6

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

CARPETS—Continued.

LOOM FIXERS, Male.				SPOOLERS, Female.			
[Data from 3 establishments 1890-1903; 8, 1904, 1905.]				[Data from 6 establishments 1890-1903; 8, 1904, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	90.9	101.1	101.6	1890.....	104.3	101.4	100.4
1891.....	95.1	101.1	98.0	1891.....	104.3	101.4	95.7
1892.....	100.0	99.9	100.2	1892.....	107.2	99.8	98.0
1893.....	101.3	99.4	100.7	1893.....	113.8	99.3	101.5
1894.....	97.4	99.4	99.6	1894.....	102.9	99.6	103.6
1895.....	101.3	99.5	98.4	1895.....	110.9	99.5	99.3
1896.....	98.7	99.5	98.4	1896.....	100.0	99.5	100.3
1897.....	100.0	99.4	102.7	1897.....	85.5	99.7	101.2
1898.....	106.5	99.5	99.4	1898.....	81.9	99.9	99.8
1899.....	101.3	99.6	100.8	1899.....	91.3	99.7	100.5
1900.....	102.6	99.7	101.0	1900.....	100.7	99.6	99.6
1901.....	105.2	99.7	100.8	1901.....	102.2	99.6	101.2
1902.....	106.5	99.6	102.4	1902.....	99.3	99.7	104.6
1903.....	111.7	99.3	106.3	1903.....	98.6	99.7	106.2
1904.....	118.3	99.0	105.7	1904.....	92.1	98.2	103.9
1905.....	111.7	99.1	108.1	1905.....	95.0	98.2	106.0

TWISTERS, Female.				WEAVERS, BRUSSELS AND WILTON, Male.			
[Data from 3 establishments 1890-1903; 6, 1904; 7, 1905.]				[Data from 3 establishments.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	116.1	101.2	103.3	1890.....	97.6	101.0	99.8
1891.....	109.7	101.2	104.4	1891.....	92.9	101.0	97.1
1892.....	109.7	101.2	104.6	1892.....	101.4	99.6	98.9
1893.....	101.6	99.6	103.4	1893.....	94.8	100.0	97.1
1894.....	85.5	99.6	89.9	1894.....	94.8	99.6	93.5
1895.....	103.2	99.1	91.7	1895.....	106.9	99.7	102.2
1896.....	108.1	99.4	99.9	1896.....	104.8	99.7	102.2
1897.....	85.5	99.6	99.5	1897.....	106.4	99.7	102.7
1898.....	72.6	99.7	102.2	1898.....	94.1	99.7	102.0
1899.....	109.7	99.3	100.9	1899.....	106.4	99.8	104.7
1900.....	132.3	99.5	103.5	1900.....	110.2	100.1	106.9
1901.....	121.0	99.2	103.3	1901.....	119.0	99.9	108.3
1902.....	132.3	99.5	103.5	1902.....	127.6	99.9	116.9
1903.....	145.2	99.7	107.2	1903.....	143.5	99.9	122.9
1904.....	180.3	95.5	108.5	1904.....	151.5	99.9	121.4
1905.....	180.3	95.5	108.4	1905.....	159.0	99.9	131.0

WEAVERS, BRUSSELS AND WILTON, Female.				WEAVERS, INGRAIN, Female.			
[Data from 1 establishment 1890-1903; 2, 1904, 1905.]				[Data from 3 establishments 1890-1903; 6, 1904, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	108.1	102.4	98.7	1890.....	96.9	101.8	96.3
1891.....	100.0	102.4	91.2	1891.....	102.9	101.7	93.0
1892.....	98.0	102.4	91.6	1892.....	104.3	99.4	94.7
1893.....	129.7	99.0	95.9	1893.....	92.6	99.4	98.5
1894.....	32.4	99.0	86.8	1894.....	106.0	99.4	100.4
1895.....	95.9	99.0	92.4	1895.....	89.5	99.3	100.8
1896.....	110.8	99.0	106.7	1896.....	95.2	99.6	101.6
1897.....	68.9	99.0	107.1	1897.....	100.0	99.7	107.2
1898.....	113.5	99.0	110.3	1898.....	103.8	99.8	100.3
1899.....	141.9	99.0	119.2	1899.....	108.1	99.8	106.8
1900.....	154.1	99.0	112.4	1900.....	105.3	99.9	103.4
1901.....	177.0	99.0	140.7	1901.....	100.2	99.9	106.1
1902.....	177.0	99.0	108.6	1902.....	103.6	99.9	93.4
1903.....	171.6	99.0	117.0	1903.....	99.3	99.9	107.4
1904.....	203.2	99.0	120.6	1904.....	95.5	98.3	99.9
1905.....	208.1	99.0	118.9	1905.....	88.0	98.5	108.8

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

CARPETS—Concluded.

WINDERS, Female.

[Data from 6 establishments 1890-1903; 7, 1904, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	1898.....	104.7	99.6	102.2
1890.....	89.8	101.4	100.5	1899.....	111.0	99.6	105.1
1891.....	89.4	101.4	96.9	1900.....	113.6	99.7	107.0
1892.....	92.8	99.9	100.4	1901.....	117.8	99.5	103.7
1893.....	104.2	99.4	99.6	1902.....	124.6	99.6	104.2
1894.....	88.6	99.6	97.9	1903.....	128.4	98.9	106.5
1895.....	108.9	99.6	97.9	1904.....	133.8	96.8	106.1
1896.....	105.9	99.6	101.2	1905.....	132.1	97.1	109.8
1897.....	103.4	99.7	98.4				

CARRIAGES AND WAGONS.

BLACKSMITHS, Male.

[Data from 98 establishments 1890-1903; 96, 1904; 66, 1905.]

Average 1890-99..	100.0	100.0	100.0
1890.....	101.2	100.7	102.4
1891.....	101.2	100.8	101.8
1892.....	104.6	100.7	101.9
1893.....	115.4	100.6	94.3
1894.....	99.3	98.7	96.6
1895.....	104.3	99.4	95.0
1896.....	85.2	99.4	101.7
1897.....	88.2	100.0	102.4
1898.....	100.3	100.2	100.9
1899.....	100.7	99.6	102.9
1900.....	102.9	99.5	101.8
1901.....	111.1	99.7	102.4
1902.....	107.5	99.2	104.8
1903.....	112.0	98.3	106.5
1904.....	109.7	98.4	107.8
1905.....	112.2	97.6	110.6

BODY MAKERS, CARRIAGE, Male.

[Data from 26 establishments 1890-1903; 39, 1904; 37, 1905.]

Average 1890-99..	100.0	100.0	100.0
1890.....	86.2	100.4	100.1
1891.....	95.9	100.4	99.7
1892.....	95.9	100.3	101.2
1893.....	97.4	100.1	100.1
1894.....	116.9	100.4	95.6
1895.....	93.8	100.2	97.8
1896.....	91.3	100.0	98.5
1897.....	101.0	99.8	98.5
1898.....	100.5	99.8	101.5
1899.....	118.5	98.6	103.8
1900.....	116.4	99.5	100.5
1901.....	137.9	99.7	98.4
1902.....	139.0	99.7	102.6
1903.....	139.0	98.7	104.4
1904.....	152.4	98.7	104.6
1905.....	178.6	95.7	112.3

BODY MAKERS, NOT SPECIFIED, Male.

[Data from 19 establishments 1890-1903; 25, 1904; 18, 1905.]

Average 1890-99..	100.0	100.0	100.0
1890.....	100.0	100.1	99.9
1891.....	104.2	100.4	100.1
1892.....	105.0	100.1	100.8
1893.....	118.3	99.7	101.9
1894.....	93.3	99.9	97.8
1895.....	93.3	100.0	95.6
1896.....	90.8	100.0	100.0
1897.....	99.2	99.6	100.7
1898.....	96.7	100.1	100.5
1899.....	97.5	100.2	102.8
1900.....	97.5	100.1	101.9
1901.....	103.3	100.2	102.0
1902.....	81.7	100.3	102.0
1903.....	85.0	99.8	107.5
1904.....	80.6	99.5	110.6
1905.....	77.6	98.5	115.1

IRONERS, Male.

[Data for employees from 7 establishments 1890-1903. Data for hours and wages from 8 establishments 1890-1896, 1898-1903; 7, 1897. Data from 28 establishments 1904; 30, 1905.]

Average 1890-99..	100.0	100.0	100.0
1890.....	100.0	100.9	98.2
1891.....	104.1	101.2	96.4
1892.....	114.4	101.2	95.9
1893.....	106.2	99.6	99.9
1894.....	89.7	99.4	101.7
1895.....	95.9	100.0	99.3
1896.....	79.4	99.9	103.9
1897.....	92.8	99.3	102.2
1898.....	104.1	100.0	98.8
1899.....	111.3	97.7	103.6
1900.....	124.7	97.4	103.4
1901.....	120.6	99.3	100.2
1902.....	117.5	100.9	99.7
1903.....	128.9	96.4	111.9
1904.....	121.6	98.7	112.0
1905.....	125.7	95.7	116.0

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

CARRIAGES AND WAGONS—Concluded.

MACHINE WOODWORKERS, Male.				PAINTERS, Male.			
[Data from 18 establishments 1890-1903; 24, 1904; 29, 1905.]				[Data from 76 establishments 1890-1903; 95, 1904; 69, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	94.7	100.8	99.0	1890.....	95.9	100.1	98.6
1891.....	98.2	100.9	97.7	1891.....	98.8	100.3	98.4
1892.....	97.4	100.8	101.1	1892.....	101.9	100.1	100.9
1893.....	92.1	100.7	99.3	1893.....	100.7	100.0	100.8
1894.....	83.7	97.5	100.7	1894.....	91.6	100.3	99.7
1895.....	102.2	100.1	96.4	1895.....	96.3	100.1	100.3
1896.....	93.4	98.7	102.6	1896.....	98.8	100.0	99.7
1897.....	100.4	99.7	100.1	1897.....	95.3	99.9	99.4
1898.....	117.2	100.8	100.7	1898.....	104.8	100.0	100.8
1899.....	122.0	100.1	102.2	1899.....	114.7	99.4	101.4
1900.....	118.9	99.0	105.1	1900.....	117.5	99.1	102.5
1901.....	134.8	100.0	103.3	1901.....	122.5	99.5	103.5
1902.....	136.6	99.8	109.1	1902.....	120.5	99.7	103.5
1903.....	134.4	99.6	110.7	1903.....	116.2	98.5	108.2
1904.....	124.1	97.1	109.9	1904.....	108.3	98.5	110.9
1905.....	128.5	96.6	111.0	1905.....	105.6	98.0	112.1

TRIMMERS, CARRIAGE, Male.				WOODWORKERS, Male.			
[Data from 46 establishments 1890-1903; 76, 1904; 60, 1905.]				[Data from 29 establishments 1890-1903; 51, 1904; 31, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	92.4	100.4	101.3	1890.....	93.6	100.1	100.5
1891.....	92.9	100.5	100.9	1891.....	93.6	100.2	100.4
1892.....	100.0	100.2	100.7	1892.....	103.7	100.0	100.3
1893.....	93.4	99.9	101.8	1893.....	103.7	100.2	99.2
1894.....	96.2	100.1	98.7	1894.....	94.5	99.8	99.4
1895.....	96.7	100.2	99.1	1895.....	95.4	100.1	101.2
1896.....	99.5	99.9	98.5	1896.....	103.7	99.4	100.5
1897.....	101.9	100.1	98.9	1897.....	102.8	100.3	99.4
1898.....	110.0	99.9	98.9	1898.....	102.8	100.4	99.0
1899.....	117.1	98.6	101.3	1899.....	106.4	99.4	100.2
1900.....	116.1	98.7	101.0	1900.....	107.3	99.4	101.6
1901.....	128.9	98.7	101.6	1901.....	111.9	98.8	101.2
1902.....	116.6	99.4	102.8	1902.....	101.8	98.8	102.3
1903.....	118.0	98.1	106.6	1903.....	96.3	97.4	104.7
1904.....	110.8	98.2	110.2	1904.....	95.7	97.0	105.0
1905.....	108.3	97.5	114.0	1905.....	107.0	95.8	101.9

CARS, STEAM RAILROAD.

BLACKSMITHS, Male.				BOILER MAKERS, Male.			
[Data for employees from 44 establishments 1890-1903. Data for hours and wages from 44 establishments 1890-1899; 45, 1890-1903. Data from 48 establishments 1904; 45, 1905.]				[Data from 34 establishments 1890-1903; 38, 1904; 33, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	111.5	101.9	102.3	1890.....	91.5	103.7	100.4
1891.....	104.7	100.8	101.0	1891.....	92.2	100.9	101.8
1892.....	107.9	101.5	101.6	1892.....	100.9	103.3	100.8
1893.....	106.8	101.1	101.8	1893.....	101.6	102.6	101.3
1894.....	82.1	96.6	101.1	1894.....	94.0	94.8	99.1
1895.....	81.4	98.1	102.2	1895.....	94.7	97.2	98.7
1896.....	100.6	98.8	96.1	1896.....	100.2	97.2	99.1
1897.....	91.3	98.1	99.4	1897.....	103.0	97.4	98.7
1898.....	104.6	101.1	97.0	1898.....	108.7	101.5	99.4
1899.....	109.6	101.8	97.5	1899.....	113.9	101.4	100.5
1900.....	121.3	101.9	97.9	1900.....	118.3	101.8	101.9
1901.....	123.4	100.9	99.2	1901.....	124.9	101.2	102.7
1902.....	128.6	100.7	104.4	1902.....	128.7	99.8	105.0
1903.....	137.5	99.9	104.4	1903.....	128.0	98.5	113.4
1904.....	127.6	98.4	111.5	1904.....	126.3	98.5	118.3
1905.....	137.3	97.8	107.8	1905.....	128.8	97.4	120.7

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

CARS, STEAM RAILROAD—Continued.

BRASS FINISHERS, Male.				CABINETMAKERS, Male.			
[Data from 7 establishments 1890-1903; 9, 1904; 8, 1905.]				[Data from 15 establishments 1890-1903; 20, 1904; 21, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	87.5	100.2	105.8	1890.....	98.1	100.1	107.6
1891.....	84.7	99.2	105.1	1891.....	96.7	99.8	107.3
1892.....	94.4	100.3	104.2	1892.....	74.0	99.9	102.3
1893.....	100.9	100.4	107.0	1893.....	88.3	100.3	105.4
1894.....	83.3	99.8	87.9	1894.....	84.5	99.9	86.5
1895.....	87.5	99.6	93.8	1895.....	107.6	100.1	91.8
1896.....	125.0	99.8	98.5	1896.....	96.1	100.0	97.9
1897.....	98.0	99.6	99.1	1897.....	116.6	99.9	97.2
1898.....	138.9	100.5	98.2	1898.....	100.0	99.9	98.3
1899.....	91.7	100.5	100.3	1899.....	137.7	100.0	104.7
1900.....	102.8	100.5	105.5	1900.....	124.6	100.2	106.9
1901.....	101.4	100.3	101.0	1901.....	126.1	99.4	112.7
1902.....	109.7	100.4	112.0	1902.....	134.1	99.6	122.5
1903.....	201.4	94.0	120.6	1903.....	103.0	93.4	130.4
1904.....	194.1	93.3	130.6	1904.....	128.9	91.9	132.3
1905.....	219.4	92.8	113.7	1905.....	91.6	92.0	120.1

CARPENTERS, Male.				COPPERSMITHS, Male.			
[Data for employees from 40 establishments 1890-1903. Data for hours and wages from 40 establishments 1890-1898; 41, 1899-1903. Data from 49 establishments 1904; 46, 1905.]				[Data from 14 establishments 1890-1903; 19, 1904; 18, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	100.9	101.2	101.6	1890.....	90.9	105.6	101.4
1891.....	101.5	100.4	101.4	1891.....	84.8	104.1	101.3
1892.....	105.5	101.3	102.9	1892.....	87.9	103.7	100.6
1893.....	104.7	100.5	104.6	1893.....	87.9	101.7	102.9
1894.....	90.3	97.9	96.9	1894.....	93.9	93.4	99.8
1895.....	89.6	96.0	98.4	1895.....	84.8	96.6	101.4
1896.....	95.3	98.9	97.5	1896.....	103.0	95.5	99.2
1897.....	95.0	98.6	98.2	1897.....	115.2	95.7	97.4
1898.....	105.2	101.2	97.8	1898.....	124.2	102.1	96.2
1899.....	111.3	101.0	100.8	1899.....	124.2	101.7	99.5
1900.....	121.3	101.3	100.6	1900.....	133.3	103.0	99.4
1901.....	122.2	100.6	102.3	1901.....	136.4	101.6	99.0
1902.....	131.8	100.7	105.9	1902.....	163.6	102.8	100.4
1903.....	133.7	99.0	109.7	1903.....	145.5	102.3	102.5
1904.....	124.6	97.5	113.4	1904.....	131.6	101.9	107.5
1905.....	160.7	97.3	115.5	1905.....	121.1	99.6	110.3

LABORERS, Male.				MACHINE WOODWORKERS, Male.			
[Data from 11 establishments 1890-1903; 41, 1904; 42, 1905.]				[Data for employees from 21 establishments 1890-1903. Data for hours and wages from 21 establishments 1890-1898; 22, 1899-1903. Data from 35 establishments 1904; 40, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	105.6	101.2	99.7	1890.....	112.1	100.8	102.9
1891.....	111.1	101.3	99.2	1891.....	119.3	100.7	106.0
1892.....	107.2	101.0	100.7	1892.....	135.0	101.2	100.4
1893.....	105.2	100.3	112.3	1893.....	143.2	101.2	102.5
1894.....	70.2	97.5	99.9	1894.....	74.0	98.9	97.3
1895.....	81.2	99.8	97.2	1895.....	74.3	99.3	96.4
1896.....	103.7	99.6	98.1	1896.....	79.2	99.3	99.1
1897.....	82.6	99.1	98.5	1897.....	74.6	98.8	95.4
1898.....	109.6	100.2	97.2	1898.....	88.7	99.8	99.1
1899.....	123.8	100.0	97.5	1899.....	99.5	100.1	100.9
1900.....	149.0	100.2	100.5	1900.....	110.0	100.6	101.7
1901.....	145.8	100.6	100.3	1901.....	119.8	99.6	100.8
1902.....	120.5	100.3	103.1	1902.....	127.8	99.7	106.0
1903.....	140.9	102.4	104.4	1903.....	129.6	96.1	113.7
1904.....	128.6	100.9	106.3	1904.....	234.8	94.0	115.9
1905.....	176.2	100.0	107.8	1905.....	145.1	94.2	115.4

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

CARS, STEAM RAILROAD—Continued.

MACHINISTS, Male.				MOLDERS, BRASS, Male.			
[Data for employees from 44 establishments 1890-1903. Data for hours and wages from 44 establishments 1890-1898; 45, 1899-1903. Data from 48 establishments 1904; 45, 1905.]				[Data from 11 establishments 1890-1903; 15, 1904; 14, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	94.8	102.0	100.5	1890.....	97.1	101.0	103.6
1891.....	94.7	100.7	100.1	1891.....	102.9	101.4	106.9
1892.....	99.6	102.2	100.3	1892.....	107.4	101.4	98.9
1893.....	100.1	101.3	100.8	1893.....	102.9	101.1	101.0
1894.....	90.9	95.9	100.7	1894.....	79.4	94.5	104.4
1895.....	94.9	99.4	99.9	1895.....	82.4	101.2	93.8
1896.....	101.9	98.7	99.5	1896.....	86.8	100.9	94.2
1897.....	99.1	98.4	99.4	1897.....	100.0	96.3	96.4
1898.....	108.5	100.3	98.9	1898.....	114.7	101.1	97.0
1899.....	115.7	101.0	100.2	1899.....	119.1	101.2	101.6
1900.....	118.5	101.7	100.6	1900.....	132.4	101.5	99.7
1901.....	118.3	101.4	102.1	1901.....	147.1	101.6	102.1
1902.....	124.3	101.3	104.8	1902.....	155.9	101.8	109.2
1903.....	133.7	99.3	110.7	1903.....	158.8	95.5	117.5
1904.....	138.8	98.5	115.2	1904.....	151.4	94.9	121.4
1905.....	157.8	96.9	115.8	1905.....	160.3	94.6	123.6

MOLDERS, IRON, Male.				PAINTERS, Male.			
[Data for employees from 13 establishments 1890-1903. Data for hours and wages from 13 establishments 1890-1898; 14, 1899-1903. Data from 14 establishments 1904; 13, 1905.]				[Data for employees from 35 establishments 1890-1903. Data for hours and wages from 35 establishments 1890-1898; 36, 1899-1903. Data from 46 establishments 1904; 45, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	113.0	100.4	105.1	1890.....	113.8	101.3	102.5
1891.....	106.3	100.8	103.7	1891.....	124.5	101.1	102.4
1892.....	111.6	100.8	104.5	1892.....	113.1	101.3	101.6
1893.....	97.7	100.7	108.5	1893.....	129.0	101.4	103.1
1894.....	86.0	96.4	99.2	1894.....	79.8	98.2	97.8
1895.....	83.2	100.7	99.1	1895.....	87.7	99.1	96.5
1896.....	101.6	101.2	92.6	1896.....	85.6	99.0	98.7
1897.....	85.3	96.9	96.2	1897.....	77.3	98.1	100.8
1898.....	100.0	101.0	95.5	1898.....	88.3	100.2	98.3
1899.....	115.2	101.1	95.7	1899.....	101.1	100.4	98.6
1900.....	124.7	101.1	97.9	1900.....	98.0	100.8	97.3
1901.....	113.5	100.2	98.8	1901.....	103.5	99.8	99.4
1902.....	125.6	100.2	101.2	1902.....	104.6	99.7	101.5
1903.....	122.4	99.3	106.0	1903.....	93.2	98.9	105.4
1904.....	108.3	97.8	110.1	1904.....	108.3	96.2	111.4
1905.....	106.6	97.0	113.1	1905.....	118.3	95.6	113.7

PATTERN MAKERS, Male.				PIPE FITTERS, Male.			
[Data for employees from 24 establishments 1890-1903. Data for hours and wages from 24 establishments 1890-1898; 25, 1899-1903. Data from 34 establishments 1904; 35, 1905.]				[Data for employees from 6 establishments 1890-1903. Data for hours and wages from 6 establishments 1890-1898; 7, 1899-1903. Data from 36 establishments 1904, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	101.8	101.6	101.8	1890.....	101.9	102.5	103.6
1891.....	99.1	100.9	102.5	1891.....	94.4	102.7	97.0
1892.....	105.4	101.6	101.2	1892.....	113.0	103.3	95.7
1893.....	97.3	101.7	103.4	1893.....	124.1	102.5	101.7
1894.....	88.3	98.9	100.9	1894.....	92.6	94.5	102.5
1895.....	92.8	97.8	99.0	1895.....	94.4	96.7	99.5
1896.....	99.1	97.7	95.8	1896.....	87.0	96.3	99.2
1897.....	91.9	97.1	97.0	1897.....	94.4	96.4	99.6
1898.....	112.6	101.0	100.0	1898.....	96.3	102.1	101.4
1899.....	114.4	101.8	98.7	1899.....	96.3	103.0	99.9
1900.....	117.1	101.7	100.1	1900.....	94.4	102.9	99.1
1901.....	127.0	101.0	102.1	1901.....	127.8	101.4	101.2
1902.....	125.2	101.5	102.5	1902.....	135.2	101.4	100.1
1903.....	126.1	98.3	108.5	1903.....	144.4	100.5	106.5
1904.....	120.8	97.5	110.7	1904.....	156.4	99.3	110.4
1905.....	135.0	97.2	112.5	1905.....	178.7	99.0	108.5

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

CARS, STEAM RAILROAD—Concluded.

TINSMITHS, Male.				UPHOLSTERERS, Male.			
[Data for employees from 34 establishments 1890-1903. Data for hours and wages from 34 establishments 1890-1898; 35, 1899-1903. Data from 44 establishments 1904; 41, 1905.]				[Data from 25 establishments 1890-1903; 34, 1904; 33, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	94.7	102.1	98.2	1890.....	100.6	100.7	108.0
1891.....	102.4	101.1	97.1	1891.....	116.1	100.9	105.3
1892.....	93.9	101.1	102.9	1892.....	106.3	100.9	105.1
1893.....	99.7	100.6	101.4	1893.....	120.7	101.1	107.0
1894.....	96.5	97.3	97.8	1894.....	87.4	98.5	92.9
1895.....	92.3	98.6	99.3	1895.....	88.5	98.7	97.0
1896.....	94.9	98.6	101.8	1896.....	85.1	99.5	94.9
1897.....	95.2	98.2	102.3	1897.....	91.4	99.0	96.2
1898.....	117.3	101.3	96.6	1898.....	98.0	100.2	96.2
1899.....	113.3	101.2	102.6	1899.....	102.9	100.6	97.2
1900.....	116.0	102.0	103.4	1900.....	117.2	101.0	98.1
1901.....	127.2	100.7	103.4	1901.....	106.3	100.5	100.0
1902.....	129.3	100.3	112.2	1902.....	105.2	100.0	105.9
1903.....	127.5	97.6	119.1	1903.....	108.0	94.9	111.8
1904.....	129.0	96.5	121.7	1904.....	152.3	91.9	123.1
1905.....	118.1	95.9	121.8	1905.....	124.5	92.0	113.9

CLOTHING, FACTORY PRODUCT.

BUTTONHOLE MAKERS, MACHINE, Male.				BUTTONHOLE MAKERS, MACHINE, Female.			
[Data from 1 establishment 1890-1903; 7, 1904; 10, 1905.]				[Data from 6 establishments 1890-1903; 20, 1904; 14, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	66.7	100.0	102.2	1890.....	106.7	101.6	96.2
1891.....	66.7	100.0	102.2	1891.....	106.7	101.6	96.2
1892.....	66.7	100.0	102.2	1892.....	106.7	101.6	96.7
1893.....	100.0	100.0	99.1	1893.....	106.7	99.6	96.4
1894.....	100.0	100.0	99.1	1894.....	93.3	98.9	99.6
1895.....	100.0	100.0	99.1	1895.....	93.3	98.9	99.6
1896.....	100.0	100.0	99.1	1896.....	100.0	99.4	102.3
1897.....	100.0	100.0	99.1	1897.....	100.0	99.4	103.4
1898.....	100.0	100.0	99.1	1898.....	100.0	99.4	107.2
1899.....	100.0	100.0	99.1	1899.....	106.7	99.6	102.4
1900.....	100.0	100.0	99.1	1900.....	106.7	99.6	99.0
1901.....	66.7	91.5	111.6	1901.....	106.7	99.6	99.3
1902.....	66.7	91.5	111.6	1902.....	113.3	96.8	99.5
1903.....	66.7	91.5	111.6	1903.....	126.7	97.9	104.2
1904.....	66.7	91.5	112.0	1904.....	128.0	97.7	106.2
1905.....	66.7	91.5	109.2	1905.....	144.4	97.6	112.3

CUTTERS, HAND, Male.				CUTTERS, MACHINE, Male.			
[Data from 8 establishments 1890-1903; 26, 1904; 25, 1905.]				[Data from 7 establishments 1890-1903; 18, 1904; 24, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	90.5	100.2	98.3	1890.....	105.9	100.1	100.8
1891.....	90.5	100.2	98.3	1891.....	105.9	100.1	100.8
1892.....	100.0	100.1	98.3	1892.....	111.8	100.3	99.8
1893.....	95.2	100.1	99.8	1893.....	105.9	100.1	100.8
1894.....	100.0	100.1	97.2	1894.....	100.0	100.1	96.7
1895.....	100.0	99.9	99.7	1895.....	94.1	99.9	99.7
1896.....	100.0	99.9	99.7	1896.....	94.1	99.9	99.7
1897.....	104.8	99.7	103.4	1897.....	94.1	99.9	96.4
1898.....	109.5	99.8	102.9	1898.....	94.1	99.9	99.9
1899.....	114.3	99.9	102.7	1899.....	94.1	99.9	103.4
1900.....	100.5	99.8	104.7	1900.....	105.9	100.1	101.6
1901.....	119.0	99.7	105.4	1901.....	111.8	99.9	101.7
1902.....	128.6	99.9	104.7	1902.....	111.8	99.0	106.1
1903.....	123.8	100.1	110.9	1903.....	111.8	98.6	107.2
1904.....	126.8	99.8	111.9	1904.....	135.5	98.1	110.3
1905.....	135.2	100.8	110.1	1905.....	148.0	97.8	100.6

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

CLOTHING, FACTORY PRODUCT—Concluded.

EXAMINERS, Female.				FINISHERS, Female.			
[Data from 4 establishments 1890-1903; 17, 1904; 8, 1905.]				[Data from 7 establishments 1890-1903; 20, 1904; 26, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	100.0	99.9	98.0	1890.....	90.5	100.8	100.1
1891.....	100.0	99.9	98.0	1891.....	90.5	100.8	100.1
1892.....	105.9	100.1	94.7	1892.....	98.4	100.4	98.2
1893.....	100.0	99.9	98.0	1893.....	96.8	100.3	97.9
1894.....	88.2	100.4	99.9	1894.....	88.9	100.7	97.9
1895.....	88.2	100.4	100.4	1895.....	90.5	100.1	101.3
1896.....	111.8	100.0	100.7	1896.....	93.7	99.4	101.3
1897.....	88.2	99.6	102.8	1897.....	103.2	99.3	101.3
1898.....	88.2	99.6	102.0	1898.....	115.9	99.2	102.3
1899.....	111.8	99.8	105.1	1899.....	123.8	99.0	99.2
1900.....	123.5	100.0	103.6	1900.....	138.1	99.0	100.2
1901.....	141.2	99.6	107.2	1901.....	133.3	98.5	103.3
1902.....	182.4	98.8	87.5	1902.....	147.6	98.4	101.3
1903.....	211.8	97.0	86.6	1903.....	142.9	98.4	101.1
1904.....	201.3	97.3	89.2	1904.....	151.5	97.6	101.5
1905.....	276.8	97.6	84.7	1905.....	164.7	97.3	106.4

PRESSERS, Male.				PRESSERS, Female.			
[Data for employees from 7 establishments 1890-1903. Data for hours and wages from 8 establishments 1890-1899; 7, 1900-1903. Data from 29 establishments 1904, 1905.]				[Data from 3 establishments 1890-1903; 8, 1904; 5, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	107.7	100.2	100.4	1890.....	102.6	100.1	102.3
1891.....	107.7	100.2	100.4	1891.....	102.6	100.1	102.3
1892.....	111.5	100.3	100.3	1892.....	105.1	100.0	103.1
1893.....	100.0	100.0	103.9	1893.....	105.1	100.0	103.1
1894.....	111.5	100.3	100.3	1894.....	82.1	100.0	86.4
1895.....	115.4	100.2	100.1	1895.....	87.2	100.0	90.9
1896.....	88.5	99.6	96.8	1896.....	102.6	100.0	100.3
1897.....	88.5	99.7	95.0	1897.....	105.1	99.9	103.3
1898.....	92.3	99.8	97.5	1898.....	105.1	99.9	103.3
1899.....	88.5	99.7	105.2	1899.....	112.8	99.9	105.3
1900.....	100.8	99.8	104.9	1900.....	120.5	99.9	108.2
1901.....	115.4	99.9	109.4	1901.....	138.5	100.0	109.9
1902.....	107.7	99.9	111.0	1902.....	151.3	99.9	105.7
1903.....	103.8	98.3	113.5	1903.....	164.1	100.0	104.1
1904.....	111.7	97.9	115.2	1904.....	79.6	98.8	135.5
1905.....	139.9	97.9	113.9	1905.....	94.1	99.9	147.5

SEWING-MACHINE OPERATORS, Male.				SEWING-MACHINE OPERATORS, Female.			
[Data for employees from 1 establishment 1890-1903. Data for hours and wages from 1 establishment 1890-1901; 2, 1902, 1903. Data from 16 establishments 1904; 24, 1905.]				[Data from 9 establishments 1890-1903; 27, 1904; 26, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	83.3	100.0	99.3	1890.....	94.1	100.2	97.5
1891.....	83.3	100.0	99.3	1891.....	101.9	99.9	99.4
1892.....	91.7	100.0	101.9	1892.....	98.6	100.0	101.1
1893.....	91.7	100.0	101.9	1893.....	88.9	100.5	98.8
1894.....	108.3	100.0	98.6	1894.....	97.8	100.1	96.6
1895.....	108.3	100.0	98.6	1895.....	99.9	100.2	97.3
1896.....	83.3	100.0	99.3	1896.....	96.7	100.0	99.6
1897.....	108.3	100.0	98.6	1897.....	103.6	99.7	99.0
1898.....	108.3	100.0	98.6	1898.....	111.2	99.6	105.7
1899.....	100.0	100.0	104.1	1899.....	107.3	99.8	105.4
1900.....	108.3	91.5	103.5	1900.....	105.9	100.0	103.0
1901.....	108.3	91.5	113.0	1901.....	108.2	100.0	104.2
1902.....	108.3	92.0	95.3	1902.....	99.5	99.5	108.6
1903.....	108.3	91.6	108.4	1903.....	108.6	99.3	111.5
1904.....	132.7	90.6	103.7	1904.....	109.4	99.2	119.2
1905.....	153.3	90.6	104.3	1905.....	119.1	98.8	123.3

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

CLOTHING, MEN'S, CUSTOM WORK.

BUSHEL MEN, Male.				BUSHEL MEN, Female.			
[Data from 43 establishments 1890-1903; 67, 1904; 111, 1905.]				[Data for employees from 1 establishment 1890-1903. Data for hours and wages from 1 establishment 1890-1895; 2, 1896, 1897; 3, 1898-1903. Data from 7 establishments 1904; 13, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	92.8	100.1	100.7	1890.....	100.0	100.0	103.2
1891.....	91.9	100.1	101.7	1891.....	100.0	100.0	103.2
1892.....	95.5	100.0	100.6	1892.....	100.0	100.0	103.2
1893.....	96.4	100.0	100.1	1893.....	100.0	100.0	103.2
1894.....	94.6	100.1	97.9	1894.....	100.0	100.0	103.2
1895.....	98.2	100.0	98.4	1895.....	100.0	100.0	103.2
1896.....	104.5	100.1	97.4	1896.....	100.0	100.0	96.4
1897.....	104.5	100.1	99.5	1897.....	150.0	100.0	98.1
1898.....	111.7	100.0	101.0	1898.....	150.0	100.0	92.9
1899.....	109.0	99.6	102.8	1899.....	100.0	100.0	93.6
1900.....	108.1	99.0	103.8	1900.....	150.0	100.0	96.4
1901.....	109.9	99.0	104.2	1901.....	200.0	100.0	100.2
1902.....	114.4	98.8	104.7	1902.....	200.0	100.0	101.5
1903.....	117.1	98.0	105.8	1903.....	200.0	97.5	105.0
1904.....	116.0	97.8	106.8	1904.....	200.0	97.9	105.6
1905.....	121.5	97.8	108.3	1905.....	193.3	97.9	105.8

COAT MAKERS, Male.				CUTTERS, Male.			
[Data from 14 establishments 1890-1903; 30, 1904; 61, 1905.]				[Data from 34 establishments 1890-1903; 63, 1904; 101, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	91.3	101.8	95.0	1890.....	102.7	100.1	99.9
1891.....	90.4	100.1	95.7	1891.....	100.0	100.0	100.6
1892.....	100.0	100.1	95.1	1892.....	100.0	100.0	100.8
1893.....	104.8	100.1	98.4	1893.....	101.3	100.3	101.4
1894.....	96.2	100.2	107.2	1894.....	94.7	100.1	99.9
1895.....	98.1	100.2	106.8	1895.....	94.7	100.1	100.7
1896.....	99.0	100.3	99.9	1896.....	101.3	100.3	97.8
1897.....	103.8	100.0	99.5	1897.....	100.0	100.1	98.8
1898.....	101.9	98.5	102.4	1898.....	102.7	99.7	99.6
1899.....	111.5	98.6	99.9	1899.....	104.0	99.5	100.3
1900.....	117.3	97.2	106.3	1900.....	102.7	99.3	101.6
1901.....	117.3	97.2	106.8	1901.....	106.7	98.8	103.0
1902.....	121.2	97.3	109.2	1902.....	109.3	98.4	104.3
1903.....	125.0	95.9	111.8	1903.....	112.0	97.1	105.8
1904.....	140.8	95.9	109.6	1904.....	118.3	96.9	103.7
1905.....	160.8	95.6	112.6	1905.....	119.9	96.9	107.3

PANTS MAKERS, Male.				PANTS MAKERS, Female.			
[Data from 13 establishments 1890-1903; 24, 1904; 45, 1905.]				[Data for employees from 1 establishment 1890-1903. Data for hours and wages from 2 establishments 1890-1898; 1, 1899; 2, 1900-1903. Data from 6 establishments 1904; 16, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	97.6	100.4	99.6	1890.....	94.1	100.5	103.4
1891.....	95.1	100.3	100.0	1891.....	94.1	100.2	101.4
1892.....	97.6	100.4	99.4	1892.....	94.1	100.5	103.4
1893.....	97.6	100.4	100.0	1893.....	94.1	101.0	105.7
1894.....	92.7	100.3	99.9	1894.....	94.1	100.5	97.0
1895.....	95.1	100.3	99.7	1895.....	94.1	100.2	96.6
1896.....	102.4	100.2	99.5	1896.....	105.9	100.2	99.5
1897.....	95.1	100.3	101.4	1897.....	117.6	100.4	103.6
1898.....	97.6	98.3	105.1	1898.....	117.6	100.0	101.2
1899.....	134.1	99.1	95.4	1899.....	117.6	96.4	87.6
1900.....	104.9	96.9	115.1	1900.....	117.6	101.2	108.2
1901.....	109.8	97.1	116.4	1901.....	111.8	101.9	109.1
1902.....	109.8	97.1	116.9	1902.....	117.0	101.7	109.4
1903.....	112.2	95.9	122.1	1903.....	117.6	98.3	115.9
1904.....	112.2	96.3	123.9	1904.....	129.6	98.7	112.1
1905.....	109.9	96.5	129.6	1905.....	116.6	98.9	115.8

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

COTTON GOODS.

CARDING-MACHINE TENDERS, Male.				DYERS, Male.			
[Data for employees from 21 establishments 1890-1903. Data for hours and wages from 21 establishments 1890; 22, 1891; 23, 1892-1903. Data from 22 establishments 1904; 29, 1905.]				[Data for employees from 6 establishments 1890-1903. Data for hours and wages from 6 establishments 1890, 1891; 7, 1892-1903. Data from 5 establishments 1904; 8, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	86.5	100.7	98.0	1890.....	116.7	99.1	106.3
1891.....	94.9	101.1	99.8	1891.....	118.5	98.9	107.2
1892.....	101.9	101.2	99.5	1892.....	113.0	99.7	105.1
1893.....	100.5	99.6	101.4	1893.....	100.0	99.6	104.1
1894.....	101.4	97.8	102.1	1894.....	90.7	100.3	95.6
1895.....	99.1	99.7	101.4	1895.....	88.9	100.7	92.3
1896.....	102.8	100.0	101.9	1896.....	96.3	100.2	95.2
1897.....	100.0	98.9	100.8	1897.....	87.0	100.6	96.9
1898.....	103.3	100.5	97.8	1898.....	90.7	100.3	99.4
1899.....	107.9	100.5	97.0	1899.....	92.6	100.7	97.8
1900.....	111.2	100.5	104.5	1900.....	101.9	100.5	100.9
1901.....	110.2	100.8	103.2	1901.....	103.7	100.0	102.3
1902.....	110.2	100.2	108.3	1902.....	120.4	98.6	107.1
1903.....	114.4	100.2	108.9	1903.....	118.5	98.8	107.7
1904.....	115.1	99.9	109.3	1904.....	110.6	98.7	104.8
1905.....	118.5	100.1	112.3	1905.....	110.0	98.6	105.7

LOOM FIXERS, Male.				SPINNERS, FRAME, Male.			
[Data for employees from 22 establishments 1890-1903. Data for hours and wages from 22 establishments 1890; 23, 1891; 24, 1892-1903. Data from 22 establishments 1904; 29, 1905.]				[Data for employees from 3 establishments 1890-1903. Data for hours and wages from 8 establishments 1890, 1897; 9, 1891, 1893, 1898, 1901; 10, 1894, 1896, 1899, 1903; 11, 1892, 1895, 1900, 1902. Data from 12 establishments 1904; 11, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	89.6	100.4	102.6	1890.....	36.1	97.3	111.6
1891.....	92.5	101.0	100.4	1891.....	101.4	100.5	89.7
1892.....	97.5	100.8	101.2	1892.....	83.3	102.4	91.6
1893.....	95.3	99.9	103.9	1893.....	101.4	100.2	89.9
1894.....	98.7	97.4	99.2	1894.....	72.2	100.4	85.7
1895.....	102.2	99.6	98.0	1895.....	70.8	100.9	91.2
1896.....	99.7	99.9	100.5	1896.....	95.8	98.3	127.0
1897.....	108.5	99.3	99.9	1897.....	120.8	99.2	109.2
1898.....	111.0	100.7	97.6	1898.....	156.9	100.5	98.9
1899.....	105.7	100.9	96.4	1899.....	161.1	100.3	105.8
1900.....	112.6	100.6	105.7	1900.....	173.6	100.0	128.5
1901.....	117.0	100.5	105.8	1901.....	119.4	99.0	135.8
1902.....	124.8	99.7	110.3	1902.....	168.1	98.0	147.3
1903.....	129.6	99.8	111.4	1903.....	86.1	96.4	185.9
1904.....	133.4	99.9	108.8	1904.....	78.5	97.8	169.7
1905.....	131.7	99.9	108.4	1905.....	75.3	97.8	200.4

SPINNERS, FRAME, Female.				SPINNERS, MULE, Male.			
[Data for employees from 20 establishments 1890-1903. Data for hours and wages from 20 establishments 1890; 21, 1891; 22, 1892-1903. Data from 22 establishments 1904; 29, 1905.]				[Data from 11 establishments 1890-1904; 13, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	88.8	100.2	99.8	1890.....	104.8	101.0	91.4
1891.....	88.7	101.0	99.4	1891.....	106.2	101.0	93.2
1892.....	92.3	101.5	95.4	1892.....	92.4	101.0	110.7
1893.....	93.9	100.3	102.1	1893.....	94.8	99.7	114.2
1894.....	95.4	98.1	97.9	1894.....	112.4	99.4	96.2
1895.....	94.4	100.0	99.5	1895.....	102.9	99.7	97.8
1896.....	97.0	99.6	108.3	1896.....	98.6	99.2	99.5
1897.....	110.9	98.8	104.1	1897.....	95.2	99.7	102.3
1898.....	119.9	100.1	97.6	1898.....	99.5	99.7	98.2
1899.....	118.4	100.2	96.3	1899.....	91.0	99.7	96.4
1900.....	107.8	100.1	108.7	1900.....	95.7	99.7	110.0
1901.....	115.2	99.5	111.8	1901.....	98.6	99.7	110.0
1902.....	110.5	99.2	117.1	1902.....	89.0	98.9	116.5
1903.....	120.0	98.9	123.7	1903.....	84.3	99.0	115.2
1904.....	125.0	98.9	123.0	1904.....	84.3	99.0	111.0
1905.....	128.6	98.8	132.4	1905.....	83.0	99.0	113.4

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

COTTON GOODS—Concluded.

WEAVERS, Male.				WEAVERS, Female.			
[Data for employees from 16 establishments 1890-1903. Data for hours and wages from 17 establishments 1890; 19, 1891, 1893, 1897, 1903; 20, 1892, 1894-1896, 1898-1902. Data from 20 establishments 1904; 28, 1905.]				[Data for employees from 19 establishments 1890-1903. Data for hours and wages from 19 establishments 1890; 20, 1891; 21, 1892-1903. Data from 21 establishments 1904; 29, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	80.3	99.2	113.5	1890.....	98.7	101.1	99.1
1891.....	80.4	100.7	103.1	1891.....	103.7	101.5	98.6
1892.....	84.5	101.5	99.0	1892.....	101.6	101.8	99.7
1893.....	98.2	99.5	107.6	1893.....	101.4	100.2	105.2
1894.....	95.0	99.0	98.6	1894.....	102.7	96.6	99.6
1895.....	98.0	99.7	96.6	1895.....	102.7	98.8	98.3
1896.....	100.2	99.3	102.9	1896.....	99.6	99.6	103.5
1897.....	117.1	100.1	95.3	1897.....	97.2	98.6	100.8
1898.....	120.7	100.5	91.5	1898.....	97.6	100.3	95.4
1899.....	125.4	100.5	92.1	1899.....	94.9	100.3	96.8
1900.....	124.3	100.0	105.1	1900.....	97.0	100.1	109.8
1901.....	116.3	100.2	104.3	1901.....	91.7	93.9	109.6
1902.....	121.3	99.5	110.7	1902.....	93.0	99.6	112.2
1903.....	117.2	98.9	118.3	1903.....	87.5	99.6	114.3
1904.....	109.0	98.5	115.3	1904.....	86.1	99.7	113.5
1905.....	108.1	98.6	116.9	1905.....	84.1	99.7	114.4

DYEING, FINISHING, AND PRINTING TEXTILES.

BLEACHERS, Male.				CALENDREERS, Male.			
[Data from 6 establishments 1890-1903; 11, 1904; 14, 1905.]				[Data from 8 establishments 1890-1903; 10, 1904; 14, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	79.6	101.4	99.8	1890.....	93.9	101.0	98.8
1891.....	81.5	101.4	94.6	1891.....	98.8	100.9	99.3
1892.....	96.3	100.7	97.7	1892.....	102.4	100.5	100.1
1893.....	107.4	99.6	99.7	1893.....	100.0	99.8	101.4
1894.....	95.4	99.3	99.2	1894.....	92.7	98.8	99.5
1895.....	105.6	99.6	100.2	1895.....	95.1	99.8	98.8
1896.....	100.0	99.6	102.5	1896.....	92.7	99.9	100.3
1897.....	113.0	99.0	101.6	1897.....	102.4	99.2	100.9
1898.....	101.9	99.7	102.7	1898.....	106.1	100.0	101.1
1899.....	115.7	99.8	101.7	1899.....	117.1	100.0	100.0
1900.....	122.2	99.8	102.9	1900.....	123.2	100.1	103.0
1901.....	138.9	99.5	102.2	1901.....	126.8	100.1	104.1
1902.....	159.3	99.5	103.3	1902.....	132.9	100.2	105.5
1903.....	185.2	99.8	104.2	1903.....	147.6	100.2	106.0
1904.....	198.9	99.7	103.7	1904.....	146.8	100.2	107.9
1905.....	251.2	99.9	104.1	1905.....	178.3	100.6	107.0

COLOR MIXERS, Male.				DYERS, Male.			
[Data for employees from 3 establishments 1890-1903. Data for hours and wages from 3 establishments 1890, 1891; 4, 1892-1903. Data from 6 establishments 1904; 9, 1905.]				[Data from 11 establishments 1890-1903; 13, 1904; 14, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	105.6	102.5	97.3	1890.....	95.3	102.0	99.4
1891.....	100.0	102.5	98.8	1891.....	115.0	102.0	96.5
1892.....	95.8	101.6	100.2	1892.....	100.2	101.3	98.5
1893.....	97.2	99.1	101.6	1893.....	104.7	99.8	101.8
1894.....	93.0	99.1	97.4	1894.....	98.5	97.3	98.7
1895.....	101.4	99.1	100.3	1895.....	95.3	99.9	98.9
1896.....	105.6	99.1	101.0	1896.....	97.5	99.9	101.8
1897.....	108.5	99.1	100.6	1897.....	98.7	97.6	101.4
1898.....	94.4	99.1	102.0	1898.....	94.5	100.1	101.3
1899.....	104.2	99.1	100.6	1899.....	94.8	100.2	101.6
1900.....	94.4	99.1	105.1	1900.....	93.6	100.2	104.9
1901.....	105.6	99.1	103.7	1901.....	107.4	100.1	103.8
1902.....	115.5	99.1	104.1	1902.....	99.2	100.1	106.0
1903.....	112.7	99.1	105.9	1903.....	106.6	100.1	107.6
1904.....	103.9	99.2	106.4	1904.....	97.8	100.5	108.2
1905.....	112.0	100.9	102.0	1905.....	96.6	100.6	109.0

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

DYEING, FINISHING, AND PRINTING TEXTILES—Concluded.

ENGRAVERS, Male.				PRINTERS, Male.			
[Data for employees from 4 establishments 1890-1903. Data for hours and wages from 4 establishments 1890, 1891; 5, 1892-1903. Data from 5 establishments 1904; 8, 1905.]				[Data for employees from 5 establishments 1890-1903. Data for hours and wages from 5 establishments 1890, 1891; 6, 1892-1903. Data from 6 establishments 1904; 10, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	101.8	101.8	99.3	1890.....	107.3	101.7	97.0
1891.....	98.2	101.8	98.2	1891.....	100.0	101.7	97.8
1892.....	101.8	101.3	99.1	1892.....	94.5	101.1	100.8
1893.....	94.7	99.3	96.7	1893.....	98.2	99.4	102.7
1894.....	91.2	99.2	98.6	1894.....	85.5	99.4	103.2
1895.....	78.9	99.1	99.9	1895.....	96.4	99.4	99.6
1896.....	100.0	99.3	100.4	1896.....	96.4	99.3	100.3
1897.....	101.8	99.3	101.2	1897.....	101.8	99.3	100.3
1898.....	108.8	99.4	103.7	1898.....	107.3	99.4	98.1
1899.....	122.8	99.4	102.8	1899.....	110.9	99.3	100.3
1900.....	138.6	99.3	103.6	1900.....	103.6	99.3	100.5
1901.....	115.8	99.4	106.5	1901.....	110.9	99.4	100.7
1902.....	124.6	99.3	105.8	1902.....	125.5	99.4	100.8
1903.....	103.5	99.0	105.9	1903.....	112.7	99.3	100.3
1904.....	106.7	99.6	106.6	1904.....	106.7	100.1	100.5
1905.....	112.1	99.2	107.2	1905.....	110.0	99.5	99.6

ELECTRICAL APPARATUS AND SUPPLIES.

ARMATURE WINDERS, Male.				BRASS FINISHERS, Male.			
[Data from 4 establishments 1890-1903; 7, 1904, 1905.]				[Data from 1 establishment 1890-1903; 5, 1904, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	68.3	100.9	98.3	1890.....	50.0	100.0	101.1
1891.....	56.1	100.7	100.8	1891.....	56.3	100.0	100.0
1892.....	63.4	100.8	99.3	1892.....	56.3	100.0	100.0
1893.....	63.4	100.8	98.1	1893.....	62.5	100.0	99.1
1894.....	97.6	101.3	94.0	1894.....	62.5	100.0	98.7
1895.....	114.6	101.4	95.7	1895.....	75.0	100.0	97.4
1896.....	136.6	98.3	108.3	1896.....	143.8	100.0	98.5
1897.....	129.3	98.8	102.0	1897.....	156.3	100.0	101.0
1898.....	129.3	98.1	101.9	1898.....	118.8	100.0	103.9
1899.....	136.6	98.7	101.6	1899.....	200.0	100.0	100.6
1900.....	175.6	99.4	99.7	1900.....	181.3	100.0	104.9
1901.....	175.6	94.7	111.7	1901.....	206.3	93.2	103.8
1902.....	187.8	94.7	109.7	1902.....	256.3	93.2	104.9
1903.....	222.0	94.6	112.8	1903.....	262.5	93.2	105.2
1904.....	204.0	94.4	109.9	1904.....	203.1	93.2	105.4
1905.....	305.1	94.6	113.7	1905.....	247.3	92.7	104.0

MACHINISTS, Male.				PATTERN MAKERS, Male.			
[Data from 4 establishments 1890-1903; 7, 1904, 1905.]				[Data from 1 establishment 1890-1903; 4, 1904, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	50.4	99.0	101.1	1890.....	50.0	100.0	94.0
1891.....	57.8	99.4	100.1	1891.....	50.0	100.0	94.0
1892.....	58.5	99.4	99.4	1892.....	50.0	100.0	94.0
1893.....	61.5	99.5	99.4	1893.....	75.0	100.0	94.0
1894.....	82.2	100.1	96.2	1894.....	75.0	100.0	94.0
1895.....	112.6	100.3	102.0	1895.....	100.0	100.0	94.0
1896.....	114.8	100.1	97.9	1896.....	125.0	100.0	94.0
1897.....	137.8	100.6	99.4	1897.....	125.0	100.0	109.7
1898.....	157.0	100.7	101.4	1898.....	125.0	100.0	116.0
1899.....	165.9	100.7	103.3	1899.....	175.0	100.0	116.4
1900.....	206.7	101.0	106.4	1900.....	250.0	100.0	99.3
1901.....	220.7	95.3	110.8	1901.....	250.0	93.2	105.0
1902.....	258.5	95.2	107.4	1902.....	225.0	93.2	107.2
1903.....	264.4	95.2	108.7	1903.....	250.0	93.2	116.3
1904.....	205.6	95.2	110.4	1904.....	263.0	93.2	115.6
1905.....	309.9	95.1	107.8	1905.....	330.1	93.0	117.1

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

FLOUR.

BOLTERS, Male.				LABORERS, Male.			
[Data from 11 establishments 1890-1903; 21, 1904; 32, 1905.]				[Data from 7 establishments 1890-1903; 31, 1904; 45, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	95.7	99.9	100.9	1890.....	81.3	100.5	97.0
1891.....	95.7	99.9	100.9	1891.....	82.4	100.5	97.3
1892.....	95.7	99.9	101.4	1892.....	83.0	100.4	97.4
1893.....	95.7	99.9	101.4	1893.....	84.7	100.4	97.8
1894.....	95.7	99.9	99.6	1894.....	84.1	100.4	97.8
1895.....	95.7	99.9	100.4	1895.....	88.1	100.2	99.1
1896.....	104.3	100.1	98.8	1896.....	118.8	99.5	103.1
1897.....	108.7	100.2	98.7	1897.....	119.3	99.5	103.0
1898.....	108.7	100.2	99.0	1898.....	129.0	99.3	103.8
1899.....	108.7	100.2	99.0	1899.....	127.3	99.4	103.5
1900.....	108.7	100.2	100.8	1900.....	127.8	99.4	103.9
1901.....	108.7	100.2	103.7	1901.....	134.1	98.4	115.1
1902.....	108.7	100.2	106.6	1902.....	134.1	98.9	117.6
1903.....	108.7	100.2	106.5	1903.....	131.3	96.9	118.0
1904.....	108.7	100.4	106.6	1904.....	130.6	97.0	117.8
1905.....	105.1	100.6	106.5	1905.....	136.7	97.4	117.1

MILLERS, Male.				MILLWRIGHTS, Male.			
[Data from 33 establishments 1890-1903; 39, 1904; 46, 1905.]				[Data from 18 establishments 1890-1903; 26, 1904; 38, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	92.5	99.7	100.4	1890.....	93.8	100.1	100.2
1891.....	92.5	99.7	100.6	1891.....	87.5	100.4	99.7
1892.....	94.8	99.9	100.3	1892.....	93.8	100.1	100.7
1893.....	94.8	99.9	100.4	1893.....	114.6	99.2	101.9
1894.....	96.5	100.0	99.9	1894.....	95.8	100.0	99.8
1895.....	96.5	100.0	100.2	1895.....	91.7	100.2	98.5
1896.....	106.4	100.3	99.4	1896.....	100.0	99.8	98.3
1897.....	106.4	100.5	98.7	1897.....	93.8	100.9	98.6
1898.....	109.2	100.2	100.0	1898.....	120.8	99.6	101.4
1899.....	111.0	99.8	100.2	1899.....	114.6	99.8	100.9
1900.....	112.1	99.8	101.5	1900.....	110.4	100.0	102.9
1901.....	111.6	99.8	102.1	1901.....	102.1	100.4	103.6
1902.....	116.2	95.4	107.8	1902.....	106.3	100.2	105.4
1903.....	119.1	93.0	110.7	1903.....	104.2	100.3	106.2
1904.....	119.9	93.4	111.6	1904.....	116.7	100.1	107.0
1905.....	123.8	93.7	112.1	1905.....	127.7	100.0	103.7

PACKERS, Male.			
[Data from 15 establishments 1890-1903; 35, 1904; 45, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	88.0	101.1	98.5
1891.....	88.0	99.8	102.9
1892.....	90.7	100.4	101.6
1893.....	90.7	101.0	96.8
1894.....	91.7	101.2	96.4
1895.....	80.8	101.0	94.1
1896.....	102.8	100.0	99.5
1897.....	107.4	99.3	101.6

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
1898.....	118.5	98.4	103.5
1899.....	126.9	97.8	105.3
1900.....	134.3	97.2	107.5
1901.....	146.3	97.5	113.7
1902.....	151.9	97.6	114.5
1903.....	156.5	98.0	114.6
1904.....	143.9	96.5	114.0
1905.....	157.6	97.3	115.7

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

FOUNDRY AND MACHINE SHOP.

BLACKSMITHS, Male.				BOILER MAKERS, Male.			
[Data from 166 establishments 1890-1903; 192, 1904; 179, 1905.]				[Data from 97 establishments 1890-1903; 96, 1904; 91, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	99.5	100.5	101.4	1890.....	105.8	101.2	99.4
1891.....	100.5	100.2	101.6	1891.....	102.2	101.2	98.8
1892.....	101.2	100.5	101.2	1892.....	105.1	100.6	99.1
1893.....	101.7	99.9	101.4	1893.....	101.3	99.8	99.0
1894.....	88.4	99.3	99.1	1894.....	87.5	99.9	100.2
1895.....	93.9	100.2	98.6	1895.....	89.9	99.9	100.8
1896.....	95.1	99.7	100.1	1896.....	97.9	99.1	100.7
1897.....	93.9	99.8	98.6	1897.....	94.8	99.3	99.9
1898.....	110.2	100.2	98.0	1898.....	107.2	99.6	100.3
1899.....	115.5	99.8	99.9	1899.....	108.4	99.2	101.7
1900.....	120.7	99.6	101.7	1900.....	116.9	98.0	106.3
1901.....	130.7	97.8	104.4	1901.....	125.5	97.1	107.1
1902.....	130.2	96.8	107.7	1902.....	128.6	96.3	107.3
1903.....	142.5	95.7	111.8	1903.....	134.6	96.1	109.2
1904.....	130.6	95.5	110.2	1904.....	121.3	95.0	113.2
1905.....	137.6	98.0	111.7	1905.....	120.9	94.8	115.4

BOILER RIVETERS, Male.				BRASS FINISHERS, Male.			
[Data from 8 establishments 1890-1903; 16, 1904; 20, 1905.]				[Data from 20 establishments 1890-1903; 20, 1904, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	84.8	101.8	107.0	1890.....	108.7	99.9	100.7
1891.....	131.6	101.7	92.9	1891.....	104.8	99.9	102.2
1892.....	62.0	99.9	108.5	1892.....	102.5	100.1	101.4
1893.....	117.7	100.8	93.3	1893.....	103.1	100.2	99.9
1894.....	98.7	100.9	94.3	1894.....	86.5	99.7	101.1
1895.....	94.9	100.8	99.0	1895.....	94.4	99.7	100.9
1896.....	100.0	99.6	96.8	1896.....	89.6	99.9	100.0
1897.....	77.2	99.2	102.6	1897.....	96.3	100.0	98.0
1898.....	89.9	99.4	96.1	1898.....	102.2	100.2	97.5
1899.....	141.8	95.8	109.6	1899.....	111.5	100.2	98.2
1900.....	132.9	98.1	94.8	1900.....	108.4	98.5	102.0
1901.....	168.4	97.2	101.5	1901.....	120.8	98.6	104.1
1902.....	102.5	93.6	115.3	1902.....	127.5	95.1	109.6
1903.....	149.4	92.8	113.1	1903.....	142.4	92.9	111.9
1904.....	130.2	92.2	119.2	1904.....	136.9	92.1	113.3
1905.....	137.4	91.3	122.9	1905.....	147.0	92.1	113.0

CORE MAKERS, Male.				CORE MAKERS, Female.			
[Data for employees from 40 establishments 1890-1903. Data for hours and wages from 40 establishments 1890-1901; 41, 1902, 1903. Data from 104 establishments 1904; 119, 1905.]				[Data from 2 establishments 1890-1903; 5, 1904, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	95.7	100.2	100.2	1890.....	142.9	101.2	83.3
1891.....	97.0	100.2	100.3	1891.....	85.7	100.0	102.3
1892.....	97.0	100.2	100.9	1892.....	71.4	99.9	109.6
1893.....	102.4	100.2	99.0	1893.....	57.1	99.7	116.6
1894.....	95.7	99.9	97.2	1894.....	85.7	100.0	105.0
1895.....	95.7	100.2	98.1	1895.....	85.7	100.0	105.5
1896.....	95.7	100.1	100.3	1896.....	71.4	99.9	107.9
1897.....	92.7	99.4	101.2	1897.....	100.0	100.1	97.5
1898.....	107.3	99.8	101.2	1898.....	114.3	100.2	96.6
1899.....	122.0	99.7	101.4	1899.....	171.4	100.0	75.4
1900.....	134.1	99.5	102.9	1900.....	157.1	100.3	88.7
1901.....	134.1	98.4	107.0	1901.....	114.3	100.2	93.9
1902.....	154.9	97.5	106.3	1902.....	185.7	100.2	89.5
1903.....	154.9	95.7	113.0	1903.....	185.7	100.2	97.0
1904.....	128.1	94.7	116.4	1904.....	165.8	98.4	100.3
1905.....	161.8	95.0	113.1	1905.....	288.9	98.0	96.4

TABLE III.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

FOUNDRY AND MACHINE SHOP—Concluded.

LABORERS, Male.				MACHINISTS, Male.			
[Data from 128 establishments 1890-1903; 186, 1904; 192, 1905.]				[Data from 218 establishments 1890-1903; 228, 1904; 206, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	102.6	100.3	99.6	1890.....	97.9	100.7	100.5
1891.....	100.2	100.2	101.6	1891.....	100.0	100.6	101.2
1892.....	103.2	100.2	102.2	1892.....	99.9	100.2	102.3
1893.....	98.4	100.1	101.7	1893.....	104.9	99.8	101.9
1894.....	81.1	99.4	98.2	1894.....	80.1	99.9	97.5
1895.....	93.7	100.1	98.3	1895.....	90.8	99.9	97.5
1896.....	97.8	100.0	99.6	1896.....	95.6	99.8	99.6
1897.....	94.0	99.5	99.9	1897.....	93.4	99.7	99.7
1898.....	106.1	99.9	99.2	1898.....	111.9	100.0	99.0
1899.....	119.8	100.3	99.9	1899.....	125.5	99.3	100.8
1900.....	126.8	99.7	102.7	1900.....	130.9	99.1	103.6
1901.....	135.6	97.7	104.7	1901.....	141.2	97.0	106.8
1902.....	143.5	97.1	107.0	1902.....	151.8	95.7	110.3
1903.....	154.3	96.0	111.7	1903.....	158.5	94.9	112.9
1904.....	145.1	95.7	113.2	1904.....	135.7	94.0	112.8
1905.....	162.0	95.7	114.4	1905.....	151.0	94.5	113.1

MOLDERS, BRASS, Male.				MOLDERS, IRON, Male.			
[Data from 38 establishments 1890-1903; 52, 1904; 48, 1905.]				[Data from 183 establishments 1890-1903; 179, 1904; 169, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	90.5	100.0	98.4	1890.....	99.6	100.4	100.6
1891.....	96.8	99.8	99.8	1891.....	99.3	100.5	101.5
1892.....	100.9	100.1	102.3	1892.....	102.0	100.3	100.9
1893.....	100.9	100.0	101.5	1893.....	107.0	99.8	101.2
1894.....	90.9	100.0	98.5	1894.....	84.7	99.7	97.9
1895.....	93.6	100.1	98.2	1895.....	93.5	100.0	98.0
1896.....	92.3	100.0	101.1	1896.....	97.8	99.9	99.2
1897.....	97.7	100.1	100.3	1897.....	91.9	99.8	100.0
1898.....	114.1	99.9	100.9	1898.....	108.7	100.0	99.1
1899.....	122.7	100.1	101.1	1899.....	115.6	99.7	101.7
1900.....	115.9	99.5	102.9	1900.....	127.4	99.6	105.7
1901.....	133.2	99.1	107.5	1901.....	127.5	98.6	108.4
1902.....	137.3	96.8	114.0	1902.....	133.4	97.2	114.6
1903.....	142.7	94.8	117.0	1903.....	141.8	95.8	120.2
1904.....	134.8	94.0	117.3	1904.....	116.2	95.1	119.5
1905.....	127.0	94.3	113.8	1905.....	134.9	95.1	119.3

PATTERN MAKERS, Male.			
[Data from 161 establishments 1890-1903; 178, 1904; 171, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	92.2	100.6	100.3
1891.....	94.1	100.6	101.0
1892.....	94.4	100.5	101.0
1893.....	101.4	99.8	102.1
1894.....	85.8	100.0	96.6
1895.....	98.8	99.9	97.7
1896.....	100.1	99.7	99.9
1897.....	96.4	99.5	99.5
1898.....	114.0	100.1	101.1
1899.....	122.3	99.3	100.9
1900.....	124.1	98.9	104.3
1901.....	120.2	97.7	106.8
1902.....	126.7	96.3	111.4
1903.....	132.9	94.8	116.2
1904.....	120.5	94.4	117.3
1905.....	136.2	94.5	118.4

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

FURNITURE.

CABINETMAKERS, Male.				CARVERS, HAND, Male.			
[Data for employees from 50 establishments 1890-1903. Data for hours and wages from 30 establishments 1890-1892; 51, 1893-1903. Data from 55 establishments 1904; 58, 1905.]				[Data from 20 establishments 1890-1903; 25, 1904; 35, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	92.0	101.2	101.8	1890.....	83.3	103.1	97.0
1891.....	91.6	100.5	102.3	1891.....	94.9	99.8	103.2
1892.....	102.1	99.7	104.5	1892.....	121.8	96.0	113.7
1893.....	101.3	99.4	103.6	1893.....	94.9	102.6	97.7
1894.....	95.9	98.4	100.1	1894.....	91.0	98.2	95.6
1895.....	92.5	99.8	98.2	1895.....	98.7	102.2	84.6
1896.....	95.9	99.8	97.2	1896.....	91.0	101.6	95.2
1897.....	105.4	99.8	98.1	1897.....	100.0	99.5	101.0
1898.....	103.3	100.7	95.7	1898.....	102.6	98.8	96.7
1899.....	118.3	100.4	98.6	1899.....	126.9	96.4	112.3
1900.....	112.8	99.9	103.4	1900.....	94.9	101.2	102.2
1901.....	108.4	98.3	107.2	1901.....	101.3	99.4	112.3
1902.....	119.6	96.8	115.1	1902.....	124.4	97.2	119.0
1903.....	125.7	96.7	116.9	1903.....	120.5	99.8	112.7
1904.....	127.7	95.9	119.0	1904.....	117.6	97.3	115.9
1905.....	137.6	95.3	122.2	1905.....	110.9	97.2	116.7

MACHINE WOODWORKERS, Male.				SAWYERS, HAND, Male.			
[Data for employees from 41 establishments 1890-1903. Data for hours and wages from 41 establishments 1890-1892; 42, 1893-1903. Data from 53 establishments 1904; 57, 1905.]				[Data for employees from 25 establishments 1890-1903. Data for hours and wages from 25 establishments 1890-1892; 26, 1893-1903. Data from 32 establishments 1904; 44, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	93.4	101.4	100.7	1890.....	94.4	101.4	105.2
1891.....	90.5	101.0	101.1	1891.....	94.4	100.3	102.6
1892.....	98.2	100.0	101.4	1892.....	92.6	99.5	102.7
1893.....	96.3	100.0	99.8	1893.....	98.1	100.5	101.2
1894.....	93.8	98.0	98.6	1894.....	90.7	96.3	99.1
1895.....	97.1	99.4	98.6	1895.....	95.3	99.3	98.8
1896.....	102.9	99.9	99.2	1896.....	101.9	100.8	97.7
1897.....	104.4	99.3	100.4	1897.....	104.9	100.0	98.4
1898.....	102.1	100.2	99.5	1898.....	113.0	100.0	97.1
1899.....	105.5	100.8	101.1	1899.....	118.5	101.9	97.5
1900.....	112.0	100.8	102.1	1900.....	124.1	101.3	100.5
1901.....	118.8	101.1	103.0	1901.....	129.6	100.8	103.7
1902.....	115.4	100.6	108.7	1902.....	137.0	100.8	104.4
1903.....	115.7	100.3	112.2	1903.....	135.2	100.7	105.8
1904.....	124.1	99.7	111.1	1904.....	128.9	99.6	100.5
1905.....	128.4	99.6	114.5	1905.....	134.8	99.4	111.7

SAWYERS, CIRCULAR, Male.			
[Data for employees from 25 establishments 1890-1903. Data for hours and wages from 25 establishments 1890-1892; 26, 1893-1903. Data from 33 establishments 1904; 43, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	90.9	100.5	101.7
1891.....	90.9	100.4	102.2
1892.....	91.8	100.3	102.6
1893.....	92.7	100.3	102.0
1894.....	92.7	96.2	97.9
1895.....	99.1	100.4	98.7
1896.....	109.1	100.3	98.0
1897.....	106.4	100.5	99.4
1898.....	110.0	100.3	98.4
1899.....	113.6	100.8	99.2
1900.....	114.5	99.9	102.9
1901.....	108.2	99.3	107.1
1902.....	110.0	98.9	111.4
1903.....	120.0	98.1	113.4
1904.....	121.4	98.5	113.9
1905.....	125.5	98.4	117.6

TABLE III.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY
OCCUPATIONS—Continued.

FURNITURE—Concluded.

SAWYERS, JIG, Male.				UPHOLSTERERS, Male.			
[Data from 6 establishments 1890-1903; 8, 1904; 10, 1905.]				[Data from 11 establishments 1890-1903; 18, 1904; 24, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	100.0	100.4	92.9	1890.....	100.7	100.5	99.4
1891.....	100.0	100.1	100.5	1891.....	99.3	100.3	101.4
1892.....	100.0	100.1	98.6	1892.....	107.4	99.9	100.2
1893.....	100.0	100.1	100.9	1893.....	100.0	100.3	98.2
1894.....	100.0	100.1	100.9	1894.....	98.7	100.2	100.6
1895.....	100.0	100.1	100.3	1895.....	93.3	100.1	99.9
1896.....	100.0	100.1	98.6	1896.....	98.0	99.7	98.1
1897.....	100.0	100.1	101.9	1897.....	98.0	99.7	97.6
1898.....	100.0	100.1	100.9	1898.....	100.7	99.7	100.6
1899.....	100.0	98.9	104.4	1899.....	106.0	99.6	104.0
1900.....	100.0	95.7	107.6	1900.....	106.7	98.3	106.0
1901.....	100.0	94.6	113.8	1901.....	113.4	94.4	121.1
1902.....	100.0	93.1	124.1	1902.....	113.4	94.9	125.2
1903.....	100.0	93.1	124.1	1903.....	112.1	92.1	125.3
1904.....	100.0	92.3	132.5	1904.....	114.3	91.3	125.1
1905.....	100.0	92.0	133.1	1905.....	124.3	91.7	126.2

GAS.

LABORERS, Male.				PIPE FITTERS, Male.			
[Data from 3 establishments 1890-1903; 23, 1904; 61, 1905.]				[Data from 4 establishments 1890-1903; 21, 1904; 54, 1905.]			
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	104.3	100.0	98.7	1890.....	68.9	100.0	102.3
1891.....	98.6	100.0	98.1	1891.....	60.7	100.0	102.4
1892.....	65.7	100.0	94.1	1892.....	72.1	100.0	101.7
1893.....	57.1	100.0	99.8	1893.....	86.9	100.0	102.5
1894.....	120.0	100.0	103.9	1894.....	95.1	100.0	101.6
1895.....	82.9	100.0	98.1	1895.....	111.5	100.0	101.7
1896.....	67.1	100.0	103.3	1896.....	104.9	100.0	101.3
1897.....	164.3	100.0	103.5	1897.....	91.8	100.0	99.6
1898.....	174.3	100.0	98.7	1898.....	200.0	100.0	91.5
1899.....	101.4	100.0	101.7	1899.....	114.8	100.0	95.4
1900.....	138.6	100.0	96.6	1900.....	109.8	100.0	100.1
1901.....	111.4	100.0	105.5	1901.....	109.8	100.0	94.8
1902.....	135.7	100.0	99.7	1902.....	188.5	100.0	98.3
1903.....	162.9	100.0	99.1	1903.....	132.8	97.5	103.0
1904.....	216.2	99.5	101.9	1904.....	165.9	97.9	101.9
1905.....	234.1	100.2	102.3	1905.....	172.9	97.7	100.9

GLASS.

BATCH MAKERS, Male.			
[Data from 8 establishments 1890-1903; 14, 1904; 24, 1905.]			
Average 1890-99..	100.0	100.0	100.0
1890.....	89.7	101.4	98.6
1891.....	103.4	100.4	98.6
1892.....	103.4	100.4	98.6
1893.....	103.4	100.4	99.4
1894.....	89.7	98.8	101.9
1895.....	89.7	98.8	101.7
1896.....	89.7	98.8	101.9
1897.....	103.4	100.4	99.4
1898.....	103.4	100.4	99.4
1899.....	110.3	100.1	100.2
1900.....	103.4	100.4	100.5
1901.....	103.4	100.4	100.2
1902.....	106.9	99.7	100.6
1903.....	100.0	100.1	103.0
1904.....	102.1	99.9	103.4
1905.....	102.1	100.2	104.8

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

GLASS—Continued.

BLOWERS, FLINT GLASS, Male.				BLOWERS, GREEN GLASS, Male.			
[Data from 5 establishments 1890-1903; 7, 1904; 13, 1905.]				[Data from 4 establishments 1890-1904; 5, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	107.1	99.8	97.2	1890.....	61.3	101.3	101.1
1891.....	123.6	99.7	98.4	1891.....	109.5	99.5	98.7
1892.....	97.3	99.9	96.9	1892.....	73.0	100.2	106.4
1893.....	68.9	100.2	98.6	1893.....	59.9	101.8	99.4
1894.....	100.4	100.1	105.6	1894.....	65.3	99.7	100.2
1895.....	94.7	100.1	98.9	1895.....	76.6	99.3	97.9
1896.....	107.6	100.0	102.3	1896.....	115.3	99.4	99.3
1897.....	94.2	100.1	103.4	1897.....	134.7	99.7	96.0
1898.....	96.9	100.0	96.5	1898.....	135.6	101.5	94.7
1899.....	109.3	100.1	102.3	1899.....	168.9	97.7	106.4
1900.....	100.9	100.0	101.4	1900.....	195.9	98.1	117.3
1901.....	140.9	99.7	106.1	1901.....	175.2	98.1	125.2
1902.....	148.0	99.6	105.5	1902.....	173.0	98.1	118.1
1903.....	160.4	99.5	106.8	1903.....	191.4	98.1	120.2
1904.....	184.5	99.3	106.0	1904.....	231.0	98.1	132.2
1905.....	163.6	99.2	103.3	1905.....	213.0	98.0	124.9

BLOWERS, WINDOW GLASS, Male.				CUTTERS, WINDOW GLASS, Male.			
[Data from 2 establishments 1890-1903; 3, 1904; 8, 1905.]				[Data for employees from 1 establishment 1890-1903. Data for hours and wages from 2 establishments 1890-1899; 1, 1900; 2, 1901-1903. Data from 3 establishments 1904; 8, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	100.0	99.9	110.8	1890.....	100.0	98.8	110.8
1891.....	120.8	100.0	104.5	1891.....	100.0	99.5	106.5
1892.....	108.3	100.0	109.8	1892.....	100.0	99.5	107.6
1893.....	104.2	100.1	104.0	1893.....	100.0	98.8	101.8
1894.....	104.2	99.9	94.6	1894.....	100.0	100.2	103.3
1895.....	95.8	100.1	75.1	1895.....	100.0	101.1	80.0
1896.....	87.5	100.1	88.3	1896.....	100.0	101.1	91.5
1897.....	83.3	100.1	93.8	1897.....	100.0	101.1	91.2
1898.....	104.2	99.9	110.1	1898.....	100.0	98.8	100.3
1899.....	104.2	99.9	109.0	1899.....	100.0	101.1	106.8
1900.....	100.0	99.9	131.4	1900.....	100.0	102.2	100.9
1901.....	104.2	99.9	111.6	1901.....	112.5	100.4	114.1
1902.....	108.3	100.1	144.9	1902.....	112.5	100.4	119.3
1903.....	95.8	100.3	158.5	1903.....	100.0	98.8	123.9
1904.....	97.6	100.1	111.2	1904.....	95.5	99.2	96.5
1905.....	104.9	99.6	134.0	1905.....	107.3	97.2	116.5

FLATTENERS, WINDOW GLASS, Male.			
[Data from 2 establishments 1890-1903; 3, 1904; 8, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	100.0	99.3	108.3
1891.....	100.0	99.3	111.9
1892.....	100.0	99.3	125.0
1893.....	100.0	99.3	116.4
1894.....	100.0	99.3	141.9
1895.....	100.0	99.3	143.9
1896.....	83.3	101.6	117.8
1897.....	83.3	101.6	145.3

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

GLASS—Continued.

GAFFERS, FLINT GLASS, Male.				GATHERERS, FLINT GLASS, Male.			
[Data from 2 establishments 1890-1903; 5, 1904; 6, 1905.]				[Data from 3 establishments 1890-1903; 5, 1904; 8, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	112.8	100.1	97.4	1890.....	125.9	100.0	96.3
1891.....	110.3	100.0	99.7	1891.....	125.0	100.0	97.1
1892.....	115.4	100.0	98.0	1892.....	96.4	100.0	97.7
1893.....	118.0	100.0	98.5	1893.....	92.0	100.0	98.4
1894.....	94.9	100.0	99.9	1894.....	83.9	100.0	101.0
1895.....	92.3	100.0	101.0	1895.....	92.0	100.0	96.8
1896.....	89.7	100.0	101.6	1896.....	92.0	100.0	100.4
1897.....	89.7	100.0	101.7	1897.....	92.0	100.0	102.8
1898.....	92.3	100.0	101.0	1898.....	100.0	100.0	102.5
1899.....	89.7	100.0	101.0	1899.....	103.6	100.0	103.9
1900.....	92.3	100.0	101.9	1900.....	124.8	100.0	104.1
1901.....	100.0	100.0	103.4	1901.....	146.4	100.0	105.3
1902.....	110.3	100.0	105.3	1902.....	161.6	100.0	106.7
1903.....	112.8	100.0	105.6	1903.....	208.9	100.0	114.4
1904.....	114.1	100.0	106.6	1904.....	182.9	100.2	112.2
1905.....	99.2	100.2	106.5	1905.....	193.1	99.9	109.5

GATHERERS, WINDOW GLASS, Male.				GATHERING BOYS (BIT), Male.			
[Data from 2 establishments 1890-1903; 3, 1904; 8, 1905.]				[Data from 4 establishments 1890-1903; 5, 1904, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	96.0	100.0	104.9	1890.....	100.0	100.0	99.7
1891.....	116.0	100.0	98.3	1891.....	100.0	100.0	99.7
1892.....	108.0	100.0	103.3	1892.....	104.9	99.9	99.4
1893.....	104.0	100.0	100.6	1893.....	107.3	99.8	99.2
1894.....	104.0	100.0	92.7	1894.....	107.3	99.8	99.2
1895.....	96.0	100.0	76.8	1895.....	124.4	99.6	98.4
1896.....	88.0	100.0	92.0	1896.....	119.5	99.7	98.6
1897.....	84.0	100.0	100.7	1897.....	82.9	100.4	101.1
1898.....	108.0	100.0	115.3	1898.....	80.5	100.5	101.3
1899.....	108.0	100.0	115.4	1899.....	70.7	100.2	103.0
1900.....	88.0	100.0	134.0	1900.....	70.7	101.1	102.2
1901.....	100.0	100.0	122.5	1901.....	70.7	101.1	102.2
1902.....	104.0	100.0	165.1	1902.....	70.7	101.1	102.2
1903.....	96.0	100.0	172.0	1903.....	70.7	101.1	102.6
1904.....	96.0	100.0	123.3	1904.....	64.6	100.1	109.8
1905.....	103.2	99.5	148.9	1905.....	61.0	100.0	111.9

LABORERS, Male.

[Data from 2 establishments 1890-1903; 12, 1904; 24, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	1898.....	161.2	100.0	92.8
1890.....	85.7	100.0	93.2	1899.....	161.2	100.0	92.8
1891.....	85.7	100.0	93.2	1900.....	175.5	100.0	93.6
1892.....	85.7	100.0	93.2	1901.....	114.3	100.0	97.7
1893.....	85.7	100.0	93.2	1902.....	108.2	100.0	98.0
1894.....	71.4	100.0	92.1	1903.....	108.2	100.0	109.1
1895.....	77.6	100.0	89.8	1904.....	104.6	100.0	107.8
1896.....	91.8	100.0	90.1	1905.....	121.6	100.0	110.0
1897.....	102.0	100.0	93.4				

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.**GLASS—Concluded.**

LEATHERMEN, Male.				PACKERS, Male.			
[Data from 10 establishments 1890-1903; 14, 1904; 27, 1905.]				[Data from 5 establishments 1890-1903; 14, 1904; 22, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	108.8	100.1	100.4	1890.....	102.0	101.0	99.8
1891.....	108.8	100.1	100.4	1891.....	103.0	100.0	99.6
1892.....	114.0	100.2	100.4	1892.....	107.0	100.1	100.4
1893.....	108.8	100.1	99.8	1893.....	108.0	100.0	100.7
1894.....	87.7	99.8	99.9	1894.....	98.0	100.3	99.7
1895.....	93.0	99.9	100.1	1895.....	85.0	98.3	102.6
1896.....	93.0	99.9	99.8	1896.....	88.0	99.2	100.8
1897.....	94.7	99.9	99.4	1897.....	102.0	100.5	98.5
1898.....	95.5	100.0	99.9	1898.....	100.0	100.2	99.1
1899.....	99.5	99.8	99.8	1899.....	106.0	100.4	98.5
1900.....	100.0	100.0	98.2	1900.....	103.0	100.7	98.2
1901.....	110.5	100.2	99.9	1901.....	102.0	100.6	101.0
1902.....	107.0	99.6	101.1	1902.....	100.0	100.6	100.4
1903.....	103.5	99.5	103.1	1903.....	91.0	99.5	136.3
1904.....	99.8	99.3	103.6	1904.....	87.7	98.8	109.3
1905.....	104.3	99.2	102.7	1905.....	97.2	99.2	109.5

TEASERS, Male.

[Data from 9 establishments 1890-1903; 12, 1904; 23, 1905.]

Average 1890-99..	100.0	100.0	100.0	1898.....	89.8	99.3	95.3
1890.....	101.7	100.1	103.3	1899.....	100.0	100.0	97.6
1891.....	108.5	100.5	101.5	1900.....	96.6	99.8	99.3
1892.....	108.5	100.5	101.5	1901.....	96.6	99.8	99.3
1893.....	106.8	100.4	102.3	1902.....	100.0	100.0	98.5
1894.....	95.6	99.8	100.3	1903.....	94.9	99.7	103.3
1895.....	95.3	99.9	100.1	1904.....	88.6	99.4	105.0
1896.....	94.9	99.7	99.2	1905.....	93.4	99.7	104.2
1897.....	96.6	99.8	98.7				

HARNESS.

COLLAR MAKERS, Male.				CUTTERS, Male.			
[Data from 17 establishments 1890-1903; 23, 1904; 30, 1905.]				[Data from 21 establishments 1890-1903; 33, 1904; 49, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	92.4	100.4	100.8	1890.....	92.0	100.2	100.9
1891.....	91.0	100.4	100.4	1891.....	93.1	100.2	100.4
1892.....	92.4	100.2	101.4	1892.....	97.7	100.3	99.6
1893.....	95.8	99.7	100.7	1893.....	97.7	100.0	100.3
1894.....	93.8	99.9	100.0	1894.....	98.9	99.9	99.5
1895.....	102.1	100.0	98.6	1895.....	95.4	99.9	100.5
1896.....	109.7	99.9	99.8	1896.....	101.1	99.9	99.7
1897.....	108.3	100.0	99.2	1897.....	104.6	100.0	98.9
1898.....	109.0	100.0	99.2	1898.....	106.9	99.8	100.1
1899.....	103.5	99.5	100.0	1899.....	117.2	99.7	99.9
1900.....	115.3	99.7	102.1	1900.....	116.1	99.9	101.4
1901.....	111.1	99.4	107.6	1901.....	116.1	99.7	104.3
1902.....	115.3	99.2	109.3	1902.....	124.1	98.7	106.0
1903.....	111.8	98.3	115.3	1903.....	121.8	97.8	118.6
1904.....	113.4	97.6	117.5	1904.....	128.0	97.8	122.7
1905.....	114.8	96.8	119.3	1905.....	129.6	96.7	124.3

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

HARNESS—Concluded.

FITTERS AND FINISHERS, Male.				HARNESS MAKERS, Male.			
[Data from 14 establishments 1890-1903; 22, 1904; 26, 1905.]				[Data from 14 establishments 1890-1903; 29, 1904; 35, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99.	100.0	100.0	100.0	Average 1890-99.	100.0	100.0	100.0
1890.	87.3	100.8	99.9	1890.	89.8	100.4	99.1
1891.	94.5	100.9	101.9	1891.	91.6	100.4	98.6
1892.	90.9	100.9	101.3	1892.	87.4	100.1	99.8
1893.	88.2	100.9	100.6	1893.	90.2	99.9	100.7
1894.	85.5	100.6	98.3	1894.	88.8	99.9	99.2
1895.	99.1	99.4	98.4	1895.	97.2	99.8	98.7
1896.	110.9	98.9	96.1	1896.	105.1	99.7	99.5
1897.	111.8	99.2	97.4	1897.	110.7	99.8	99.9
1898.	108.2	99.5	102.1	1898.	115.3	99.8	102.1
1899.	127.3	98.8	103.7	1899.	124.7	100.0	101.4
1900.	120.9	99.1	104.0	1900.	129.3	100.0	101.9
1901.	130.0	98.5	110.4	1901.	128.4	99.8	102.2
1902.	151.8	97.8	114.6	1902.	128.4	99.4	102.7
1903.	161.8	95.8	124.5	1903.	133.0	99.5	105.9
1904.	155.6	95.7	128.0	1904.	133.0	99.0	107.4
1905.	154.3	95.9	129.0	1905.	141.1	98.2	108.6

STITCHERS, HAND, Male.				STITCHERS, MACHINE, Male.			
[Data from 9 establishments 1890-1903; 14, 1904; 16, 1905.]				[Data from 20 establishments 1890-1903; 29, 1904; 40, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99.	100.0	100.0	100.0	Average 1890-99.	100.0	100.0	100.0
1890.	90.6	100.0	100.5	1890.	94.0	100.5	99.9
1891.	90.6	100.0	100.5	1891.	90.0	100.4	100.8
1892.	96.9	100.0	101.4	1892.	90.0	99.9	99.8
1893.	103.1	100.0	101.7	1893.	90.0	99.8	102.2
1894.	103.1	99.7	98.1	1894.	97.0	99.8	99.1
1895.	100.0	100.0	97.4	1895.	102.0	99.8	97.3
1896.	93.8	100.0	98.8	1896.	105.0	99.9	98.1
1897.	96.9	100.0	101.8	1897.	103.0	99.8	99.6
1898.	112.5	100.1	100.1	1898.	109.0	99.9	100.3
1899.	125.0	100.1	99.4	1899.	108.0	99.9	102.9
1900.	134.4	100.1	100.1	1900.	131.0	99.9	102.6
1901.	153.1	100.1	101.3	1901.	132.0	99.5	107.9
1902.	162.5	100.1	108.9	1902.	132.0	98.8	110.4
1903.	159.4	99.2	116.1	1903.	145.0	97.6	114.2
1904.	146.7	97.6	116.2	1904.	148.6	97.7	116.1
1905.	136.4	97.1	114.9	1905.	138.5	97.1	115.6

HATS, FUR.

BLOCKERS, Male.				COLORERS, Male.			
[Data from 4 establishments 1890-1904; 13, 1905.]				[Data from 4 establishments 1890-1904; 12, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99.	100.0	100.0	100.0	Average 1890-99.	100.0	100.0	100.0
1890.	75.0	101.8	106.4	1890.	100.0	100.0	102.7
1891.	80.8	101.6	97.9	1891.	112.5	100.4	98.1
1892.	86.5	100.7	100.3	1892.	95.8	100.4	95.8
1893.	92.3	101.5	92.9	1893.	120.2	100.1	96.4
1894.	113.5	100.9	98.8	1894.	133.3	99.4	98.9
1895.	98.1	101.0	91.9	1895.	79.2	99.7	100.6
1896.	96.2	101.5	93.4	1896.	79.2	100.0	101.3
1897.	101.9	101.5	95.5	1897.	79.2	100.0	101.4
1898.	115.4	94.5	110.0	1898.	87.5	100.1	100.8
1899.	134.6	94.9	112.8	1899.	104.2	100.0	99.0
1900.	111.5	94.7	113.6	1900.	87.5	99.7	100.4
1901.	121.2	94.6	106.9	1901.	112.5	99.5	100.6
1902.	117.3	93.2	113.2	1902.	116.7	92.2	109.6
1903.	119.2	92.1	111.2	1903.	129.2	90.6	112.1
1904.	105.7	92.2	111.8	1904.	141.7	90.7	115.5
1905.	125.3	90.6	117.7	1905.	158.4	90.5	119.0

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

HATS, FUR—Continued.

CONERS, Male.				CURLERS, Male.			
[Data from 3 establishments 1890-1904; 15, 1905.]				[Data from 4 establishments 1890-1904; 11, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	86.4	100.6	99.7	1890.....	76.2	100.1	110.9
1891.....	100.0	100.7	99.5	1891.....	76.2	100.3	116.8
1892.....	100.0	100.7	99.5	1892.....	81.0	100.1	112.0
1893.....	100.1	100.4	100.9	1893.....	85.7	100.2	101.5
1894.....	104.5	100.4	99.2	1894.....	100.5	99.9	98.4
1895.....	86.4	100.1	99.6	1895.....	95.2	99.9	92.2
1896.....	86.4	100.6	94.2	1896.....	104.8	100.0	92.2
1897.....	100.0	99.6	106.2	1897.....	114.2	99.9	90.5
1898.....	104.5	99.7	98.9	1898.....	100.5	100.1	92.1
1899.....	118.2	97.3	101.2	1899.....	142.9	99.5	90.4
1900.....	136.4	97.1	102.7	1900.....	123.8	99.6	90.1
1901.....	154.5	97.4	103.1	1901.....	123.8	99.9	101.6
1902.....	140.9	92.6	120.1	1902.....	100.0	99.3	106.5
1903.....	140.9	96.8	120.2	1903.....	132.2	99.4	107.2
1904.....	145.9	96.7	126.0	1904.....	147.1	99.4	106.7
1905.....	161.9	88.2	140.5	1905.....	165.5	99.1	117.2

FEEDERS, Male.				FEEDERS, Female.			
[Data from 2 establishments 1890-1904; 4, 1905.]				[Data for employees from 3 establishments 1890-1903. Data for hours and wages from 3 establishments 1890-1902, 1894, 1897-1903; 4, 1893, 1905, 1906. Data from 3 establishments 1904, 9, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	66.7	101.0	91.9	1890.....	80.5	100.4	100.8
1891.....	83.3	100.1	96.6	1891.....	105.2	100.4	99.1
1892.....	83.3	100.1	90.2	1892.....	105.2	100.4	99.1
1893.....	83.3	100.1	92.4	1893.....	105.2	100.1	99.1
1894.....	100.0	99.8	99.9	1894.....	110.5	100.4	94.7
1895.....	83.3	100.1	102.9	1895.....	84.2	100.0	100.8
1896.....	66.7	101.0	97.2	1896.....	80.5	100.0	99.6
1897.....	123.2	99.2	124.9	1897.....	80.5	100.4	100.2
1898.....	83.3	100.1	100.8	1898.....	105.2	100.2	100.2
1899.....	183.2	98.4	102.7	1899.....	94.7	97.5	102.6
1900.....	200.0	98.7	101.5	1900.....	80.5	97.8	101.7
1901.....	226.7	98.9	101.4	1901.....	105.2	98.2	99.9
1902.....	200.0	97.0	118.8	1902.....	121.1	91.2	112.1
1903.....	200.0	97.0	118.6	1903.....	115.8	89.2	115.6
1904.....	123.2	95.9	118.7	1904.....	130.9	88.8	121.8
1905.....	183.2	95.8	122.0	1905.....	100.9	88.9	120.6

FINISHERS, Male.				FLANGERS, Male.			
[Data from 5 establishments 1890-1903; 5, 1904; 15, 1905.]				[Data from 3 establishments 1890-1903; 4, 1904; 15, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	105.8	100.4	103.2	1890.....	92.9	100.8	124.0
1891.....	95.7	99.3	97.6	1891.....	78.6	100.4	101.8
1892.....	94.2	99.8	99.1	1892.....	78.6	100.4	109.5
1893.....	91.7	99.8	98.4	1893.....	71.4	99.4	91.8
1894.....	85.2	100.4	101.7	1894.....	92.9	99.5	113.7
1895.....	85.9	100.0	101.3	1895.....	78.6	99.6	98.2
1896.....	92.8	100.1	98.8	1896.....	85.7	99.9	97.5
1897.....	104.3	99.6	98.0	1897.....	78.6	100.4	92.5
1898.....	108.4	100.2	98.7	1898.....	142.9	100.2	90.4
1899.....	136.7	100.5	103.4	1899.....	178.6	99.2	91.6
1900.....	141.5	100.2	102.9	1900.....	200.0	99.9	90.6
1901.....	148.5	100.5	106.4	1901.....	200.0	99.6	91.9
1902.....	170.0	98.5	114.6	1902.....	200.0	95.7	108.9
1903.....	182.4	95.7	116.8	1903.....	242.9	92.4	95.2
1904.....	148.1	97.9	110.8	1904.....	219.2	93.5	96.4
1905.....	146.2	97.7	115.5	1905.....	223.6	92.5	101.5

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

HATS, FUR—Continued.

FUR BLOWERS, Male.				HARDENERS, Male.			
[Data from 3 establishments 1890-1903; 4, 1904; 13, 1905.]				[Data from 5 establishments 1890-1904; 14, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890..	90.0	100.2	103.9	1890..	90.5	100.5	107.0
1891..	100.0	100.2	96.1	1891..	104.8	100.6	100.6
1892..	120.0	100.3	96.4	1892..	104.8	100.6	102.6
1893..	100.0	100.2	100.0	1893..	104.8	100.6	100.3
1894..	80.0	100.1	95.9	1894..	104.8	100.6	100.0
1895..	90.0	100.2	101.0	1895..	85.7	100.4	103.1
1896..	90.0	100.2	101.0	1896..	100.0	100.2	97.4
1897..	80.0	100.1	100.7	1897..	104.8	99.5	99.9
1898..	90.0	100.2	96.7	1898..	100.5	99.6	95.3
1899..	130.0	98.4	108.4	1899..	100.5	97.4	93.7
1900..	190.0	98.6	107.2	1900..	100.5	97.3	94.5
1901..	200.0	98.7	106.4	1901..	123.8	97.9	96.7
1902..	190.0	91.2	119.6	1902..	119.0	92.3	109.0
1903..	200.0	89.5	131.1	1903..	119.0	92.3	110.0
1904..	219.0	89.3	141.1	1904..	142.8	92.3	115.0
1905..	230.5	89.2	155.5	1905..	153.2	90.4	117.0

POUNCERS, Male.				SIZERS, Male.			
[Data from 4 establishments 1890-1904; 11, 1905.]				[Data from 5 establishments 1890-1904; 13, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890..	104.2	100.2	104.6	1890..	89.1	101.9	109.7
1891..	100.0	100.1	106.2	1891..	97.7	101.4	105.0
1892..	91.7	100.4	86.6	1892..	71.3	101.3	110.9
1893..	112.5	100.3	95.6	1893..	88.4	101.1	96.4
1894..	112.5	100.3	92.1	1894..	106.6	100.4	102.5
1895..	91.7	100.1	93.8	1895..	100.0	100.3	98.7
1896..	83.3	99.8	106.9	1896..	104.3	101.0	89.3
1897..	70.8	99.7	105.6	1897..	102.6	101.0	91.3
1898..	108.3	99.5	111.0	1898..	116.8	95.9	96.5
1899..	137.5	99.6	97.4	1899..	124.4	95.8	99.9
1900..	212.5	100.2	100.0	1900..	150.5	96.6	108.3
1901..	275.0	100.3	90.6	1901..	155.4	96.9	111.1
1902..	383.3	91.4	88.7	1902..	141.9	94.0	114.1
1903..	379.2	89.8	96.4	1903..	152.5	92.1	128.1
1904..	379.2	90.5	91.5	1904..	157.7	93.3	125.8
1905..	459.1	90.3	87.8	1905..	171.5	93.0	124.1

STIFFENERS, Male.				TRIMMERS, Female.			
[Data from 3 establishments 1890-1903; 4, 1904; 14, 1905.]				[Data from 4 establishments 1890-1903; 5, 1904; 14, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890..	80.0	100.6	91.4	1890..	63.9	101.1	108.0
1891..	80.0	100.6	85.8	1891..	78.7	101.5	105.0
1892..	80.0	100.6	92.8	1892..	71.0	101.0	105.9
1893..	120.0	99.6	94.1	1893..	90.3	99.6	102.2
1894..	80.0	100.6	101.7	1894..	114.2	99.4	97.3
1895..	160.0	100.1	103.9	1895..	93.5	99.6	89.7
1896..	140.0	99.4	108.1	1896..	98.7	98.7	97.5
1897..	140.0	99.4	106.7	1897..	116.1	99.4	97.5
1898..	120.0	99.6	108.3	1898..	123.2	99.9	97.4
1899..	120.0	99.6	107.3	1899..	151.6	99.8	96.6
1900..	120.0	99.6	113.0	1900..	165.2	100.0	103.9
1901..	60.0	101.9	124.7	1901..	165.8	100.1	98.3
1902..	100.0	96.6	104.1	1902..	151.6	96.2	100.1
1903..	100.0	94.9	120.8	1903..	146.5	93.8	98.4
1904..	119.0	94.9	122.6	1904..	150.2	94.4	104.2
1905..	114.8	93.3	121.8	1905..	158.8	94.2	113.6

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

HATS, FUR—Concluded.

WEIGHERS, Female.

[Data from 3 establishments 1890-1904; 11, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	1898.....	116.7	100.4	99.8
1890.....	83.3	100.3	102.5	1899.....	110.7	96.8	104.0
1891.....	116.7	100.4	102.0	1900.....	116.7	96.8	106.2
1892.....	100.0	100.4	98.3	1901.....	150.0	96.7	106.1
1893.....	116.7	100.4	99.8	1902.....	166.7	91.2	112.7
1894.....	100.0	100.4	95.8	1903.....	166.7	88.7	114.3
1895.....	100.0	100.4	98.3	1904.....	196.7	89.4	113.7
1896.....	100.0	100.4	100.9	1905.....	184.6	89.5	114.5
1897.....	100.0	100.4	98.3				

HOSIERY AND KNIT GOODS.

BOARDERS, Male.

[Data for employees from 5 establishments 1890-1903. Data for hours and wages from 5 establishments 1890-1901; 6, 1902, 1903. Data from 8 establishments 1904; 20, 1905.]

Average 1890-99..	100.0	100.0	100.0
1890.....	98.7	101.3	107.9
1891.....	103.9	101.3	100.3
1892.....	105.3	101.3	90.3
1893.....	119.7	99.7	106.8
1894.....	76.3	98.2	91.5
1895.....	107.9	99.4	110.8
1896.....	93.4	99.7	99.9
1897.....	84.2	99.7	99.0
1898.....	109.2	99.7	99.3
1899.....	106.0	99.8	94.2
1900.....	111.8	99.6	91.9
1901.....	105.3	99.2	116.2
1902.....	118.4	99.2	107.8
1903.....	102.6	98.2	125.4
1904.....	114.8	98.4	123.5
1905.....	127.5	98.3	127.9

FINISHERS, Female.

[Data for employees from 5 establishments 1890-1903. Data for hours and wages from 5 establishments 1890-1901; 6, 1902, 1903. Data from 8 establishments 1904; 19, 1905.]

Average 1890-99..	100.0	100.0	100.0
1890.....	76.0	101.3	106.6
1891.....	91.8	101.3	113.2
1892.....	137.2	101.3	105.2
1893.....	100.5	101.0	97.4
1894.....	79.1	91.3	92.4
1895.....	98.5	101.1	93.4
1896.....	105.1	100.8	100.9
1897.....	99.5	100.8	98.8
1898.....	109.2	100.6	100.7
1899.....	101.0	100.6	92.3
1900.....	121.9	98.1	99.3
1901.....	115.8	97.8	103.4
1902.....	114.8	98.1	118.7
1903.....	122.4	96.0	121.3
1904.....	97.0	96.7	119.7
1905.....	114.9	96.2	128.0

KNITTERS, Male.

[Data for employees from 3 establishments 1890-1903. Data for hours and wages from 3 establishments 1890-1901; 4, 1902, 1903. Data from 4 establishments 1904; 14, 1905.]

Average 1890-99..	100.0	100.0	100.0
1890.....	47.7	102.8	107.7
1891.....	59.1	102.8	118.6
1892.....	84.1	102.8	99.8
1893.....	75.0	100.5	113.4
1894.....	56.8	91.3	110.0
1895.....	81.8	100.3	112.2
1896.....	115.9	100.1	90.4
1897.....	138.6	99.9	81.8
1898.....	177.3	99.8	85.4
1899.....	165.9	99.8	80.7
1900.....	181.8	98.7	90.9
1901.....	220.5	98.7	92.3
1902.....	202.3	98.7	95.7
1903.....	193.2	97.4	123.9
1904.....	154.0	97.6	115.4
1905.....	171.4	97.3	119.2

KNITTERS, Female.

[Data for employees from 5 establishments 1890-1903. Data for hours and wages from 7 establishments 1890-1895; 6, 1896, 1897, 1902, 1903; 5, 1898-1901. Data from 9 establishments 1904; 17, 1905.]

Average 1890-99..	100.0	100.0	100.0
1890.....	82.1	100.5	104.9
1891.....	109.7	100.6	104.8
1892.....	107.6	100.6	99.0
1893.....	124.8	100.5	97.4
1894.....	90.0	95.7	101.1
1895.....	97.9	100.4	104.6
1896.....	96.6	100.5	98.5
1897.....	86.6	100.5	98.7
1898.....	98.3	100.5	96.2
1899.....	105.5	100.5	94.5
1900.....	106.2	99.3	91.5
1901.....	100.3	99.6	103.1
1902.....	109.7	99.3	112.4
1903.....	121.4	98.6	116.6
1904.....	99.0	98.2	111.4
1905.....	121.4	98.1	124.1

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

HOSIERY AND KNIT GOODS—Concluded.

LOOPERS, Female.				MENDERS, Female.			
[Data for employees from 4 establishments 1890-1903. Data for hours and wages from 4 establishments 1890-1893; 5, 1894-1902; 6, 1903. Data from 5 establishments 1904; 16, 1905.]				[Data for employees from 5 establishments 1890-1903. Data for hours and wages from 5 establishments 1890-1901; 6, 1902, 1903. Data from 6 establishments 1904; 18, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	94.8	101.9	99.8	1890.....	85.5	101.8	108.9
1891.....	139.7	102.0	103.3	1891.....	95.2	101.8	105.5
1892.....	143.1	102.0	100.0	1892.....	160.3	101.8	99.0
1893.....	132.8	101.6	104.2	1893.....	109.6	99.5	100.8
1894.....	70.7	91.5	95.9	1894.....	110.8	95.9	92.4
1895.....	75.9	101.3	106.7	1895.....	80.2	99.4	113.4
1896.....	60.0	99.9	117.4	1896.....	74.7	99.7	97.8
1897.....	82.8	99.9	91.0	1897.....	68.7	100.1	92.1
1898.....	87.9	99.9	93.3	1898.....	120.5	100.2	95.8
1899.....	96.6	99.9	88.5	1899.....	84.3	99.8	93.8
1900.....	115.5	98.3	80.7	1900.....	106.0	99.2	104.1
1901.....	87.9	98.2	94.3	1901.....	116.9	98.8	92.3
1902.....	82.8	98.2	92.9	1902.....	120.5	99.0	112.2
1903.....	96.6	98.2	106.1	1903.....	110.8	98.6	110.6
1904.....	93.8	98.1	93.3	1904.....	127.9	98.6	106.1
1905.....	106.1	98.4	99.4	1905.....	132.6	98.2	113.7

PRESSERS, Male.				PRESSERS, Female.			
[Data for employees from 3 establishments 1890-1903. Data for hours and wages from 3 establishments 1890, 1891, 1902, 1903; 4, 1892, 1901. Data from 5 establishments 1904; 14, 1905.]				[Data from 2 establishments 1890-1904; 3, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	94.1	101.1	107.4	1890.....	45.0	102.4	110.8
1891.....	76.5	101.1	105.2	1891.....	25.0	102.4	102.3
1892.....	117.6	101.1	92.6	1892.....	130.0	102.4	101.5
1893.....	117.6	100.8	98.9	1893.....	100.0	99.0	99.8
1894.....	111.8	92.3	94.6	1894.....	55.0	99.0	109.6
1895.....	94.1	100.7	94.4	1895.....	155.0	99.0	91.4
1896.....	105.9	100.7	100.9	1896.....	85.0	99.0	105.4
1897.....	100.0	100.7	100.8	1897.....	80.0	99.0	97.9
1898.....	94.1	100.7	103.9	1898.....	115.0	99.0	88.8
1899.....	105.9	100.7	101.4	1899.....	125.0	99.0	92.9
1900.....	111.8	98.3	106.6	1900.....	135.0	99.0	107.1
1901.....	94.1	97.4	103.6	1901.....	250.0	99.0	104.0
1902.....	117.6	99.0	107.1	1902.....	135.0	99.0	110.3
1903.....	141.2	99.3	116.2	1903.....	135.0	99.0	100.9
1904.....	207.6	99.5	112.9	1904.....	125.0	97.2	122.3
1905.....	222.4	99.6	120.5	1905.....	365.4	98.5	131.7

RIBBERS, Female.			
[Data from 2 establishments 1890-1904; 6, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	107.5	100.0	100.5
1891.....	102.5	100.0	112.3
1892.....	112.5	100.0	103.1
1893.....	107.5	100.0	103.4
1894.....	102.5	100.0	91.8
1895.....	97.5	100.0	98.8
1896.....	92.5	100.0	87.2
1897.....	97.5	100.0	92.0
1898.....	90.0	100.0	96.4
1899.....	80.0	100.0	114.4
1900.....	97.5	100.0	110.1
1901.....	95.0	100.0	112.8
1902.....	90.0	100.0	120.9
1903.....	107.5	100.0	119.0
1904.....	110.9	100.0	117.3
1905.....	121.6	100.0	122.6

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

IRON AND STEEL, BAR.

CATCHERS, Male.				HEATERS, Male.			
[Data for employees from 12 establishments 1890-1903. Data for hours and wages from 13 establishments 1890, 1894, 1895; 14, 1891-1893, 1896-1898; 15, 1899; 16, 1900-1903. Data from 17 establishments 1904; 23, 1905.]				[Data for employees from 12 establishments 1890-1903. Data for hours and wages from 13 establishments 1890, 1894, 1895; 14, 1891-1893, 1896-1898; 15, 1899; 16, 1900-1903. Data from 19 establishments 1904; 22, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	93.8	102.8	116.1	1890.....	95.9	103.3	116.9
1891.....	93.8	101.4	104.8	1891.....	100.0	101.8	106.5
1892.....	96.9	101.4	99.8	1892.....	98.0	102.2	98.0
1893.....	112.5	100.8	91.8	1893.....	100.0	101.7	92.1
1894.....	101.1	101.3	87.4	1894.....	91.8	101.8	94.2
1895.....	109.4	100.0	87.8	1895.....	104.1	101.0	88.0
1896.....	87.5	100.8	101.7	1896.....	93.9	101.3	95.4
1897.....	96.9	97.8	98.4	1897.....	106.1	95.7	97.6
1898.....	100.0	97.6	94.0	1898.....	100.0	96.0	98.5
1899.....	103.1	96.2	118.4	1899.....	102.0	95.1	112.6
1900.....	103.1	97.0	121.2	1900.....	110.2	96.3	119.7
1901.....	103.1	96.9	120.7	1901.....	93.9	99.7	109.8
1902.....	112.5	98.4	137.4	1902.....	95.9	99.9	116.9
1903.....	118.8	98.3	144.7	1903.....	108.2	99.2	121.1
1904.....	106.6	97.0	131.4	1904.....	105.6	98.7	111.3
1905.....	108.7	97.3	134.7	1905.....	104.7	99.0	106.0

HEATERS' HELPERS, Male.

[Data for employees from 11 establishments 1890-1903. Data for hours and wages from 12 establishments 1890, 1894, 1895; 13, 1891-1893, 1896-1898; 14, 1899; 15, 1900-1903. Data from 18 establishments 1904; 21, 1905.]

Average 1890-99..	100.0	100.0	100.0
1890.....	100.0	103.9	118.2
1891.....	105.7	102.4	101.7
1892.....	103.8	102.6	99.1
1893.....	107.5	102.5	96.6
1894.....	103.8	100.3	90.9
1895.....	96.2	100.9	93.5
1896.....	92.5	100.1	96.2
1897.....	96.2	96.1	94.9
1898.....	96.2	96.0	96.9
1899.....	98.1	95.3	111.8
1900.....	101.9	98.3	119.0
1901.....	96.8	101.1	116.6
1902.....	90.6	101.0	127.8
1903.....	92.5	100.7	135.8
1904.....	83.5	100.9	127.0
1905.....	84.1	101.2	124.9

HOT STRAIGHTENERS, Male.

[Data for employees from 11 establishments 1890-1903. Data for hours and wages from 11 establishments 1890; 12, 1891-1899; 13, 1900-1903. Data from 16 establishments 1904; 21, 1905.]

Average 1890-99..	100.0	100.0	100.0
1890.....	101.5	102.8	102.0
1891.....	101.5	101.4	102.6
1892.....	101.5	101.5	96.9
1893.....	101.5	101.5	98.9
1894.....	97.0	101.8	87.1
1895.....	100.0	101.0	103.7
1896.....	100.0	101.2	108.2
1897.....	95.5	98.1	91.7
1898.....	98.5	95.4	96.2
1899.....	103.0	95.4	112.9
1900.....	111.9	96.1	110.7
1901.....	111.9	96.2	120.0
1902.....	113.4	96.6	140.3
1903.....	114.9	95.5	136.1
1904.....	105.0	94.3	120.4
1905.....	112.6	93.8	123.4

ROLLERS, Male.

[Data for employees from 12 establishments 1890-1903. Data for hours and wages from 13 establishments 1890, 1894, 1895; 14, 1891-1893, 1896-1898; 15, 1900-1903. Data from 16 establishments 1904; 20, 1905.]

Average 1890-99..	100.0	100.0	100.0
1890.....	103.4	101.5	102.8
1891.....	93.1	101.3	105.1
1892.....	96.6	101.6	99.6
1893.....	117.2	100.0	92.6
1894.....	103.4	101.1	89.0
1895.....	103.4	100.5	89.7
1896.....	93.1	100.9	98.8
1897.....	96.6	97.7	106.0
1898.....	96.6	97.7	102.0
1899.....	100.0	97.6	114.5
1900.....	113.8	98.6	119.5
1901.....	103.4	99.0	124.0
1902.....	110.3	99.0	134.0
1903.....	113.8	98.9	136.8
1904.....	101.8	98.9	129.5
1905.....	108.4	99.4	135.2

ROUGHERS, Male.

[Data for employees from 12 establishments 1890-1903. Data for hours and wages from 13 establishments 1890, 1894, 1895; 14, 1891-1893, 1896-1898; 15, 1899; 16, 1900-1903. Data from 20 establishments 1904; 25, 1905.]

Average 1890-99..	100.0	100.0	100.0
1890.....	101.8	101.9	105.6
1891.....	96.5	101.3	108.9
1892.....	93.0	101.5	106.5
1893.....	96.5	101.6	102.2
1894.....	101.8	101.3	92.0
1895.....	108.8	100.9	87.5
1896.....	96.5	101.5	95.6
1897.....	94.7	97.3	99.5
1898.....	107.0	96.8	90.0
1899.....	103.5	95.9	112.1
1900.....	112.3	97.3	119.3
1901.....	105.3	97.6	126.1
1902.....	101.8	97.8	140.6
1903.....	107.0	97.5	144.4
1904.....	98.6	97.3	134.2
1905.....	103.3	97.9	136.9

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

IRON AND STEEL, BESSEMER CONVERTING.

BLOWERS, Male.

[Data for employees from 6 establishments 1890-1903. Data for hours and wages from 6 establishments 1890; 7, 1891, 1894-1896; 8, 1892, 1893, 1897-1900; 9, 1901-1903. Data from 10 establishments 1904; 16, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	91.7	104.3	85.3
1891.....	100.0	97.3	101.3
1892.....	100.0	101.6	92.4
1893.....	100.0	99.2	98.1
1894.....	100.0	99.3	97.7
1895.....	100.0	99.9	102.0
1896.....	100.0	99.9	108.3
1897.....	100.0	99.6	101.1
1898.....	100.0	99.6	104.0
1899.....	100.0	99.6	110.8
1900.....	116.7	88.5	121.4
1901.....	116.7	90.4	129.6
1902.....	116.7	90.4	134.7
1903.....	125.0	89.5	144.4
1904.....	141.3	82.2	133.1
1905.....	141.3	82.4	137.9

BOTTOM MAKERS, Male.

[Data for employees from 5 establishments 1890-1903. Data for hours and wages from 5 establishments 1890; 7, 1891-1893, 1897-1900; 6, 1894-1896; 8, 1901-1903. Data from 10 establishments 1904; 16, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	91.7	103.7	126.0
1891.....	100.0	99.8	117.7
1892.....	100.0	101.6	120.3
1893.....	100.0	100.7	105.8
1894.....	100.0	99.3	98.6
1895.....	100.0	99.3	100.4
1896.....	100.0	99.3	95.2
1897.....	100.0	98.7	78.2
1898.....	100.0	98.0	79.8
1899.....	100.0	98.7	78.0
1900.....	100.0	94.9	90.2
1901.....	100.0	94.9	105.5
1902.....	100.0	94.9	115.4
1903.....	91.7	99.7	122.2
1904.....	88.9	98.8	101.7
1905.....	88.9	98.8	107.3

LADLE LINERS, Male.

[Data for employees from 6 establishments 1890-1903. Data for hours and wages from 6 establishments 1890; 7, 1891, 1894-1896; 8, 1892, 1893, 1897-1900; 9, 1901-1903. Data from 10 establishments 1904; 16, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	106.7	91.5	122.4
1891.....	100.0	101.1	111.4
1892.....	100.0	100.7	117.7
1893.....	106.7	97.6	113.7
1894.....	100.0	103.4	92.4
1895.....	100.0	103.4	95.1
1896.....	100.0	103.4	89.5
1897.....	106.7	98.0	86.4
1898.....	100.0	102.9	81.2
1899.....	106.7	98.0	90.0
1900.....	113.3	93.8	101.0
1901.....	113.3	95.1	108.4
1902.....	113.3	95.1	116.4
1903.....	120.0	99.8	127.6
1904.....	106.7	97.7	106.8
1905.....	106.7	98.1	116.8

MELTERS, Male.

[Data for employees from 5 establishments 1890-1903. Data for hours and wages from 5 establishments 1890; 6, 1891, 1894-1896; 7, 1892, 1893, 1897-1900; 8, 1901-1903. Data from 10 establishments 1904; 13, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	100.0	93.9	117.4
1891.....	121.4	95.1	121.6
1892.....	100.0	104.9	112.8
1893.....	100.0	101.5	102.5
1894.....	100.0	100.1	93.2
1895.....	100.0	100.1	94.1
1896.....	100.0	100.1	85.4
1897.....	100.0	101.4	87.0
1898.....	100.0	101.4	92.4
1899.....	100.0	101.4	93.8
1900.....	150.0	92.7	106.8
1901.....	121.4	105.4	97.4
1902.....	121.4	105.4	109.7
1903.....	121.4	105.4	122.3
1904.....	148.7	93.4	98.2
1905.....	153.4	92.3	104.8

STEEL POURERS, Male.

[Data for employees from 6 establishments 1890-1903. Data for hours and wages from 6 establishments 1890; 7, 1891, 1894-1896; 8, 1892, 1893, 1897-1900; 9, 1901-1903. Data from 10 establishments 1904; 14, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	100.0	96.1	112.0
1891.....	100.0	97.7	123.1
1892.....	100.0	101.2	118.2
1893.....	100.0	97.8	106.8
1894.....	100.0	97.7	94.9
1895.....	100.0	97.7	94.4
1896.....	94.1	103.1	81.7
1897.....	94.1	102.9	86.6
1898.....	94.1	102.9	88.0
1899.....	94.1	102.9	94.3
1900.....	117.6	85.8	109.0
1901.....	117.6	87.7	122.2
1902.....	117.6	87.7	133.6
1903.....	117.6	87.7	137.8
1904.....	114.1	86.5	121.2
1905.....	121.7	88.1	137.2

VESSEL MEN, Male.

[Data for employees from 6 establishments 1890-1903. Data for hours and wages from 6 establishments 1890; 7, 1891, 1894-1896; 8, 1892, 1893, 1897-1900; 9, 1901-1903. Data from 10 establishments 1904; 16, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	107.1	100.1	116.9
1891.....	107.1	97.7	120.1
1892.....	107.1	100.7	112.6
1893.....	107.1	98.2	106.3
1894.....	100.0	100.7	100.0
1895.....	100.0	100.7	98.0
1896.....	100.0	100.7	94.8
1897.....	100.0	100.4	78.3
1898.....	100.0	100.4	83.3
1899.....	100.0	100.4	89.6
1900.....	114.3	92.7	108.7
1901.....	114.3	93.9	115.7
1902.....	114.3	93.9	126.0
1903.....	114.3	93.9	136.3
1904.....	99.7	87.8	127.1
1905.....	97.9	87.5	135.9

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

IRON AND STEEL, BLAST FURNACE.

CINDER SNAPPERS, Male.

[Data for employees from 18 establishments 1890-1903. Data for hours and wages from 19 establishments 1890-1903, 1896-1903; 18, 1894, 1895. Data from 22 establishments 1904; 23, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	103.8	100.0	102.6
1891.....	100.0	100.0	102.7
1892.....	102.5	100.0	105.7
1893.....	97.5	100.0	102.9
1894.....	96.9	100.0	90.8
1895.....	100.6	100.0	98.3
1896.....	99.4	100.0	102.5
1897.....	98.1	100.0	93.4
1898.....	90.4	100.0	95.3
1899.....	100.6	100.0	106.1
1900.....	101.9	100.0	109.9
1901.....	107.5	100.0	112.9
1902.....	97.5	100.0	113.6
1903.....	98.1	100.0	116.9
1904.....	98.6	98.6	114.2
1905.....	100.5	98.6	120.5

HOT BLAST MEN, Male.

[Data for employees from 17 establishments 1890-1903. Data for hours and wages from 18 establishments 1890-1903, 1896-1903; 17, 1894, 1895. Data from 22 establishments 1904; 23, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	97.0	100.0	104.0
1891.....	98.5	100.0	104.1
1892.....	104.5	100.0	105.8
1893.....	101.5	100.0	104.2
1894.....	98.5	100.0	92.5
1895.....	97.0	100.0	94.8
1896.....	101.5	100.0	99.1
1897.....	98.5	100.0	96.3
1898.....	101.5	100.0	96.4
1899.....	101.5	100.0	102.9
1900.....	104.5	100.0	109.0
1901.....	106.1	100.0	109.1
1902.....	112.1	100.0	113.8
1903.....	113.6	100.0	118.0
1904.....	116.7	100.0	114.0
1905.....	127.5	100.0	118.5

KEEPERS, Male.

[Data for employees from 18 establishments 1890-1903. Data for hours and wages from 19 establishments 1890-1903, 1896-1903; 18, 1894, 1895. Data from 22 establishments 1904; 23, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	92.7	100.0	106.3
1891.....	95.1	100.0	108.5
1892.....	106.1	100.0	108.8
1893.....	98.8	100.0	106.5
1894.....	100.0	100.0	92.5
1895.....	100.0	100.0	97.3
1896.....	96.3	100.0	99.0
1897.....	96.3	100.0	91.2
1898.....	104.9	100.0	91.1
1899.....	106.1	100.0	98.7
1900.....	104.9	100.0	103.6
1901.....	109.8	100.0	104.1
1902.....	114.6	100.0	108.9
1903.....	113.4	100.0	111.8
1904.....	114.4	100.0	105.4
1905.....	119.0	100.0	110.3

KEEPERS' HELPERS, Male.

[Data for employees from 18 establishments 1890-1903. Data for hours and wages from 19 establishments 1890-1903, 1896-1903; 18, 1894, 1895. Data from 22 establishments 1904; 23, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	89.7	100.0	105.1
1891.....	89.7	100.0	107.1
1892.....	108.1	100.0	108.3
1893.....	99.1	100.0	106.9
1894.....	99.6	100.0	88.6
1895.....	98.2	100.0	98.6
1896.....	98.7	100.0	100.9
1897.....	99.6	100.0	96.9
1898.....	105.8	100.0	92.2
1899.....	109.4	100.0	101.4
1900.....	107.6	100.0	105.3
1901.....	113.9	100.0	105.6
1902.....	114.8	100.0	109.8
1903.....	107.2	100.0	113.4
1904.....	103.0	100.0	106.0
1905.....	111.4	100.0	110.7

TOP FILLERS, Male.

[Data for employees from 16 establishments 1890-1903. Data for hours and wages from 17 establishments 1890-1893, 1896-1903; 16, 1894, 1895. Data from 19 establishments 1904, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	97.5	100.0	103.8
1891.....	92.3	100.0	103.9
1892.....	102.5	100.0	106.8
1893.....	101.8	100.0	105.4
1894.....	104.2	100.0	92.5
1895.....	105.4	100.0	93.7
1896.....	98.8	100.0	99.1
1897.....	98.8	100.0	95.1
1898.....	101.2	100.0	94.7
1899.....	101.0	100.0	105.1
1900.....	101.8	100.0	108.7
1901.....	95.2	100.0	108.6
1902.....	82.1	100.0	110.3
1903.....	76.2	100.0	112.0
1904.....	68.2	99.2	108.2
1905.....	65.2	104.2	103.2

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

LEATHER.

COLORERS, Male.				FLESHERS, Male.			
[Data from 14 establishments 1890-1903; 23, 1904; 27, 1905.]				[Data for employees from 31 establishments 1890-1903. Data for hours and wages from 31 establishments 1890, 1891; 32, 1892-1903. Data from 38 establishments 1904; 40, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	94.3	100.1	95.4	1890.....	103.8	100.0	105.8
1891.....	91.5	100.0	97.1	1891.....	98.9	99.9	104.6
1892.....	111.3	99.7	98.2	1892.....	106.0	99.9	104.4
1893.....	74.5	100.2	99.7	1893.....	98.9	100.0	103.8
1894.....	118.9	99.9	98.4	1894.....	98.4	100.0	97.2
1895.....	110.4	99.9	99.2	1895.....	103.3	100.1	95.7
1896.....	81.1	100.1	102.9	1896.....	94.5	100.1	98.2
1897.....	88.7	100.1	105.4	1897.....	93.4	100.1	96.1
1898.....	101.9	100.1	102.4	1898.....	94.5	100.1	97.2
1899.....	126.4	99.9	101.2	1899.....	109.9	99.9	97.3
1900.....	119.8	100.0	103.6	1900.....	106.6	99.9	101.0
1901.....	104.7	99.7	105.6	1901.....	104.9	100.0	102.4
1902.....	95.3	99.5	109.0	1902.....	111.5	100.0	103.4
1903.....	104.7	99.6	110.6	1903.....	122.0	100.7	105.3
1904.....	94.7	100.0	111.0	1904.....	109.1	99.4	107.5
1905.....	94.3	100.1	108.7	1905.....	113.0	100.1	103.1

GLAZERS, Male.				GLAZERS, Female.			
[Data for employees from 9 establishments 1890-1903. Data for hours and wages from 10 establishments 1890, 1891, 1894-1903; 9, 1892, 1893. Data from 18 establishments 1904; 20, 1905.]				[Data for employees from 1 establishment 1890-1903. Data for hours and wages from 1 establishment 1890, 1891; 2, 1892-1894; 3, 1895-1903. Data from 6 establishments 1904; 7, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	58.7	99.9	97.8	1890.....	17.1	100.1	101.1
1891.....	77.8	99.9	96.4	1891.....	46.3	100.1	98.5
1892.....	80.8	99.8	98.4	1892.....	48.8	100.1	94.6
1893.....	74.6	99.8	91.3	1893.....	12.2	100.1	92.5
1894.....	103.2	99.9	96.0	1894.....	24.4	100.1	98.1
1895.....	101.1	100.1	106.2	1895.....	85.4	99.9	97.8
1896.....	128.6	100.2	100.9	1896.....	68.3	99.9	106.4
1897.....	126.5	100.2	101.1	1897.....	109.8	99.9	108.9
1898.....	110.1	100.2	105.6	1898.....	363.4	100.0	97.5
1899.....	134.4	100.0	106.5	1899.....	231.7	99.9	104.4
1900.....	142.3	100.0	105.1	1900.....	261.0	100.0	107.2
1901.....	133.3	100.2	114.5	1901.....	212.2	100.0	116.5
1902.....	127.5	100.1	117.5	1902.....	168.3	100.0	126.6
1903.....	171.4	100.2	130.1	1903.....	241.5	100.0	125.1
1904.....	160.9	100.1	125.5	1904.....	405.8	100.0	133.6
1905.....	164.9	100.2	124.8	1905.....	389.1	100.0	132.6

LINERS, Male.				ROLLERS, Male.			
[Data for employees from 29 establishments 1890-1903. Data for hours and wages from 29 establishments 1890, 1891; 30, 1892-1903. Data from 38 establishments 1904; 44, 1905.]				[Data from 6 establishments 1890-1903; 14, 1904; 22, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	91.9	99.6	105.5	1890.....	100.0	100.0	100.0
1891.....	95.7	99.6	103.5	1891.....	100.0	100.0	100.0
1892.....	102.7	99.7	104.3	1892.....	100.0	100.0	100.0
1893.....	87.1	99.6	102.8	1893.....	100.0	100.0	99.6
1894.....	94.6	99.8	98.4	1894.....	100.0	100.0	99.6
1895.....	98.4	100.1	97.9	1895.....	105.3	99.9	101.1
1896.....	96.2	100.1	96.1	1896.....	100.0	100.0	99.6
1897.....	105.9	100.6	95.5	1897.....	100.0	100.0	99.6
1898.....	103.8	100.5	95.8	1898.....	100.0	100.0	99.6
1899.....	123.1	100.5	99.9	1899.....	105.3	99.9	101.1
1900.....	120.4	100.5	101.9	1900.....	110.5	100.0	100.2
1901.....	125.8	100.6	101.4	1901.....	121.1	100.0	103.5
1902.....	133.9	100.6	105.1	1902.....	121.1	100.0	106.1
1903.....	148.4	100.3	106.4	1903.....	121.1	100.0	106.1
1904.....	145.2	99.6	106.1	1904.....	121.1	95.5	113.6
1905.....	150.9	99.9	106.6	1905.....	123.9	95.8	110.1

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

LEATHER—Concluded.

SETTERS OUT, Male.				SHAVERS, Male.			
[Data from 15 establishments 1890-1903; 28, 1904; 31, 1905.]				[Data from 16 establishments 1890-1903; 24, 1904; 32, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	84.0	100.2	103.6	1890.....	95.6	100.4	112.2
1891.....	91.8	100.1	103.0	1891.....	115.6	100.5	114.0
1892.....	117.2	100.0	98.6	1892.....	114.4	100.4	111.9
1893.....	66.8	100.5	107.8	1893.....	96.7	99.6	115.0
1894.....	116.4	99.9	96.5	1894.....	97.8	99.5	101.0
1895.....	106.7	100.0	96.5	1895.....	94.4	99.5	97.2
1896.....	63.4	100.1	99.9	1896.....	78.9	99.2	86.0
1897.....	118.3	99.8	96.9	1897.....	87.8	100.3	86.5
1898.....	107.5	99.9	95.4	1898.....	111.1	100.4	84.7
1899.....	127.2	99.4	101.9	1899.....	104.4	100.2	88.2
1900.....	124.3	99.5	101.5	1900.....	112.2	100.3	87.5
1901.....	131.0	99.6	103.0	1901.....	113.3	100.2	89.4
1902.....	122.0	99.6	102.7	1902.....	97.8	100.3	92.3
1903.....	114.9	99.6	105.5	1903.....	108.9	100.3	94.3
1904.....	103.3	99.2	108.3	1904.....	115.2	101.0	96.9
1905.....	102.7	99.8	111.1	1905.....	136.7	101.7	96.0

STAKERS, Male.				TAN YARD HANDS, Male.			
[Data from 8 establishments 1890-1903; 17, 1904; 20, 1905.]				[Data from 19 establishments 1890-1903; 37, 1904; 52, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	69.5	100.1	92.1	1890.....	91.7	99.5	103.5
1891.....	89.2	99.9	100.8	1891.....	92.6	99.2	105.1
1892.....	112.6	99.9	105.3	1892.....	101.8	99.4	105.3
1893.....	106.6	99.9	105.0	1893.....	102.5	99.6	103.8
1894.....	104.2	100.0	102.1	1894.....	97.7	99.7	98.2
1895.....	111.4	100.0	102.4	1895.....	98.6	100.0	96.6
1896.....	89.8	100.0	100.0	1896.....	92.8	100.2	97.0
1897.....	96.4	100.1	96.0	1897.....	98.0	100.6	97.8
1898.....	107.2	100.2	94.9	1898.....	111.3	101.1	95.5
1899.....	114.4	100.0	101.6	1899.....	112.4	100.5	97.0
1900.....	86.2	100.1	71.6	1900.....	108.8	100.5	100.2
1901.....	123.4	100.1	76.5	1901.....	114.0	100.5	101.0
1902.....	77.8	100.2	74.1	1902.....	109.0	100.5	104.5
1903.....	83.8	100.3	73.4	1903.....	113.7	100.3	107.1
1904.....	83.5	100.0	75.1	1904.....	125.5	99.8	108.2
1905.....	91.2	100.7	75.4	1905.....	135.0	100.0	109.2

UNHAIRERS, Male.			
[Data from 11 establishments 1890-1903; 30, 1904; 45, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	91.6	99.5	105.6
1891.....	89.4	99.6	104.4
1892.....	95.5	99.4	104.4
1893.....	103.4	99.4	102.0
1894.....	95.0	99.6	95.6
1895.....	94.4	100.2	96.6
1896.....	102.2	99.9	98.4
1897.....	106.7	100.8	99.7
1898.....	112.3	100.8	97.2
1899.....	108.9	100.8	96.0
1900.....	114.5	100.7	99.1
1901.....	124.0	100.8	101.2
1902.....	129.1	100.7	105.6
1903.....	126.8	99.8	105.8
1904.....	108.7	99.9	104.1
1905.....	119.1	100.4	108.2

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY
OCCUPATIONS—Continued.

LIQUORS, MALT.

BOTTLEERS, Male.				CELLAR MEN, Male.			
[Data from 23 establishments 1890-1903; 40, 1904; 35, 1905.]				[Data from 47 establishments 1890-1903; 57, 1904; 51, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99.	100.0	100.0	100.0	Average 1890-99.	100.0	100.0	100.0
1890.	95.0	100.1	98.3	1890.	97.2	100.6	98.5
1891.	90.4	100.1	102.7	1891.	96.6	100.3	97.9
1892.	96.0	100.1	99.5	1892.	101.0	100.4	98.2
1893.	99.8	100.1	98.2	1893.	101.0	100.2	99.7
1894.	100.7	100.1	100.6	1894.	98.2	100.2	100.3
1895.	87.2	100.1	101.6	1895.	98.4	100.2	100.5
1896.	100.5	100.1	99.4	1896.	99.1	100.1	101.3
1897.	103.2	100.0	99.8	1897.	104.2	99.8	101.3
1898.	105.4	99.1	99.9	1898.	102.1	99.2	101.9
1899.	121.6	100.1	99.9	1899.	101.5	98.9	102.4
1900.	321.1	92.8	117.9	1900.	105.2	97.4	104.7
1901.	187.8	93.2	115.8	1901.	104.2	95.4	107.6
1902.	208.6	91.2	124.4	1902.	106.4	92.4	113.6
1903.	243.6	91.6	127.3	1903.	100.2	90.2	117.0
1904.	244.6	90.0	131.3	1904.	114.2	89.4	118.7
1905.	249.5	89.9	133.0	1905.	117.0	89.7	120.1

COOPERS, Male.				DRIVERS, Male.			
[Data from 32 establishments 1890-1903; 41, 1904; 40, 1905.]				[Data from 40 establishments 1890-1903; 58, 1904; 52, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99.	100.0	100.0	100.0	Average 1890-99.	100.0	100.0	100.0
1890.	69.6	101.1	99.0	1890.	89.4	100.3	99.0
1891.	70.6	100.6	100.2	1891.	93.6	100.1	99.9
1892.	75.9	101.0	98.6	1892.	94.9	100.1	99.3
1893.	110.2	101.5	98.1	1893.	99.1	100.0	100.0
1894.	111.9	101.5	98.4	1894.	96.4	100.0	100.3
1895.	116.8	101.3	100.2	1895.	101.9	100.1	100.2
1896.	108.3	97.2	100.1	1896.	105.0	100.1	100.2
1897.	119.1	101.1	99.8	1897.	107.1	99.8	100.3
1898.	103.3	97.2	102.7	1898.	105.0	99.7	100.2
1899.	110.9	97.5	101.6	1899.	108.0	99.7	100.5
1900.	94.7	98.2	107.1	1900.	108.5	99.2	102.3
1901.	102.0	91.8	115.1	1901.	112.4	98.1	104.3
1902.	103.0	85.9	125.7	1902.	113.6	97.2	107.0
1903.	106.6	85.7	126.8	1903.	117.4	96.9	107.5
1904.	103.4	85.3	127.4	1904.	120.7	98.3	107.2
1905.	93.3	85.6	132.0	1905.	123.9	97.2	109.3

FERMENTERS, Male.				KETTLE MEN, Male.			
[Data from 32 establishments 1890-1903; 45, 1904; 46, 1905.]				[Data from 43 establishments 1890-1903; 56, 1904; 51, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99.	100.0	100.0	100.0	Average 1890-99.	100.0	100.0	100.0
1890.	86.6	102.2	97.9	1890.	96.6	101.2	98.0
1891.	94.9	100.5	96.3	1891.	96.6	100.5	97.6
1892.	92.4	100.5	98.2	1892.	100.6	100.5	97.8
1893.	105.1	100.2	99.1	1893.	100.6	100.3	97.9
1894.	107.6	100.3	99.4	1894.	103.4	100.4	98.9
1895.	107.0	99.9	100.3	1895.	101.7	100.1	100.4
1896.	100.6	99.9	100.5	1896.	99.4	100.0	101.0
1897.	101.9	99.4	101.4	1897.	99.4	99.3	102.6
1898.	101.3	98.6	103.4	1898.	102.9	98.9	103.8
1899.	103.8	98.6	103.4	1899.	100.6	98.9	103.8
1900.	108.3	96.2	106.8	1900.	105.7	97.7	105.1
1901.	105.7	93.6	110.3	1901.	104.6	95.7	108.6
1902.	110.2	90.2	116.2	1902.	108.6	90.8	115.4
1903.	117.2	88.8	119.7	1903.	114.9	88.9	119.2
1904.	120.6	88.4	121.7	1904.	114.4	88.3	122.1
1905.	123.0	88.5	123.8	1905.	113.9	87.5	123.9

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

LIQUORS, MALT—Concluded.

MALT HOUSE MEN.				WASHERS, Male.			
[Data from 21 establishments 1890-1903, 1905; 25, 1904.]				[Data from 46 establishments 1890-1903; 56, 1904; 50, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	107.9	100.0	98.0	1890.....	100.0	100.5	96.5
1891.....	99.0	99.9	99.5	1891.....	101.6	100.3	96.6
1892.....	95.4	101.0	96.6	1892.....	103.3	100.5	95.1
1893.....	97.4	100.7	98.7	1893.....	112.6	100.7	98.5
1894.....	107.3	100.8	98.2	1894.....	107.7	100.6	98.7
1895.....	99.7	100.9	98.7	1895.....	103.1	100.3	99.8
1896.....	102.3	100.8	100.1	1896.....	94.2	100.2	101.1
1897.....	97.7	99.9	101.8	1897.....	92.0	99.8	101.4
1898.....	94.1	98.2	103.7	1898.....	94.6	98.7	104.1
1899.....	99.0	97.9	101.7	1899.....	90.6	98.4	105.0
1900.....	103.6	92.9	111.4	1900.....	87.9	96.6	108.0
1901.....	105.0	91.8	114.3	1901.....	101.7	93.7	113.2
1902.....	92.1	90.2	117.5	1902.....	102.5	90.3	120.5
1903.....	95.7	88.6	120.7	1903.....	104.3	88.6	124.4
1904.....	101.5	88.3	122.3	1904.....	98.1	88.9	126.6
1905.....	100.6	88.7	123.6	1905.....	104.4	88.5	129.4

LUMBER.

BAND SETTERS, Male.				CANT SETTERS, GANG, Male.			
[Data from 22 establishments 1890-1903; 26, 1904; 42, 1905.]				[Data from 10 establishments 1890-1903; 14, 1904, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	100.0	100.2	102.5	1890.....	100.0	100.2	101.3
1891.....	100.0	100.1	102.8	1891.....	100.0	100.2	101.4
1892.....	101.8	100.2	103.7	1892.....	100.0	100.2	101.6
1893.....	98.2	100.1	101.4	1893.....	100.0	100.2	101.5
1894.....	96.5	100.0	96.2	1894.....	100.0	100.2	101.4
1895.....	101.8	100.0	94.7	1895.....	100.0	100.2	99.6
1896.....	96.5	99.7	96.6	1896.....	103.2	100.0	95.4
1897.....	98.2	99.6	98.5	1897.....	103.2	100.0	95.4
1898.....	103.5	100.0	99.7	1898.....	90.3	99.4	99.2
1899.....	105.3	100.1	103.9	1899.....	90.3	99.4	103.4
1900.....	103.5	100.0	104.5	1900.....	90.3	99.4	104.3
1901.....	100.0	98.4	104.5	1901.....	90.3	99.4	104.7
1902.....	114.0	99.1	113.9	1902.....	90.3	97.8	106.7
1903.....	103.5	99.5	115.5	1903.....	87.1	95.8	113.1
1904.....	100.7	98.0	115.0	1904.....	90.2	96.1	113.7
1905.....	108.0	97.9	117.9	1905.....	90.2	96.1	116.6

CARRIAGE MEN, Male.

[Data from 7 establishments 1890-1903; 30, 1904; 48, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	100.0	100.0	98.5
1891.....	100.0	100.0	99.4
1892.....	100.0	100.0	99.4
1893.....	100.0	100.0	99.4
1894.....	100.0	100.0	99.5
1895.....	91.7	99.8	97.3
1896.....	100.0	100.0	98.8
1897.....	100.0	100.0	99.1
1898.....	100.0	100.0	100.4
1899.....	100.0	100.0	107.8
1900.....	100.0	100.0	107.1
1901.....	100.0	98.5	112.3
1902.....	100.0	97.3	117.9
1903.....	100.0	97.3	122.8
1904.....	96.6	97.8	121.8
1905.....	103.4	97.8	123.1

CHOPPERS AND SAWYERS IN WOODS, Male.

[Data from 16 establishments 1890-1903; 24, 1904; 32, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0
1890.....	98.2	100.4	98.6
1891.....	100.6	100.4	97.8
1892.....	100.8	100.0	99.3
1893.....	95.0	99.9	95.9
1894.....	95.9	99.9	94.7
1895.....	97.0	99.8	98.5
1896.....	97.5	100.0	98.3
1897.....	103.1	99.8	101.0
1898.....	103.3	99.6	106.5
1899.....	108.1	100.2	109.4
1900.....	114.8	100.0	109.5
1901.....	115.1	99.9	113.2
1902.....	121.4	100.0	115.7
1903.....	135.2	99.8	116.3
1904.....	183.2	99.4	109.9
1905.....	190.1	99.4	115.4

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

LUMBER—Continued.

CIRCULAR SETTERS, Male.				EDGER MEN, Male.			
[Data from 15 establishments 1890-1903; 19, 1904; 23, 1905.]				[Data from 23 establishments 1890-1903; 43, 1904; 65, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	89.3	101.0	105.7	1890.....	94.2	100.8	104.8
1891.....	92.9	100.4	102.8	1891.....	96.2	100.3	104.9
1892.....	92.9	100.4	103.3	1892.....	96.2	100.3	106.1
1893.....	92.9	98.6	102.5	1893.....	100.0	99.3	104.4
1894.....	92.9	98.6	98.7	1894.....	92.3	99.3	97.7
1895.....	92.9	100.4	97.8	1895.....	94.2	100.4	94.6
1896.....	96.4	100.6	97.7	1896.....	98.1	100.3	97.6
1897.....	107.1	100.2	95.8	1897.....	105.8	100.0	95.5
1898.....	114.3	100.0	98.2	1898.....	107.7	99.8	96.2
1899.....	125.0	99.7	97.5	1899.....	111.5	99.5	98.3
1900.....	125.0	98.8	100.9	1900.....	119.2	99.2	102.9
1901.....	132.1	98.7	101.5	1901.....	125.0	98.9	105.8
1902.....	146.4	98.0	101.4	1902.....	128.8	98.4	105.9
1903.....	146.4	98.0	100.7	1903.....	132.7	98.7	110.2
1904.....	136.2	98.1	115.1	1904.....	132.7	98.2	110.5
1905.....	121.7	97.8	126.2	1905.....	140.3	98.1	112.9

FILERS, Male.				LABORERS, Male.			
[Data from 36 establishments 1890-1903; 37, 1904; 59, 1905.]				[Data from 17 establishments 1890-1903; 42, 1904; 64, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	95.9	100.5	100.6	1890.....	93.3	100.3	104.8
1891.....	97.3	100.2	101.2	1891.....	98.5	100.1	104.4
1892.....	98.6	100.1	100.1	1892.....	94.9	100.3	103.3
1893.....	97.3	99.5	102.0	1893.....	95.5	100.1	102.8
1894.....	98.6	99.4	97.6	1894.....	101.3	100.2	98.1
1895.....	95.9	100.2	96.4	1895.....	101.0	100.0	95.6
1896.....	94.5	100.3	98.9	1896.....	97.3	100.1	96.7
1897.....	102.7	100.1	98.8	1897.....	100.7	100.0	94.8
1898.....	106.8	100.0	100.4	1898.....	108.4	99.4	97.9
1899.....	105.5	99.9	104.1	1899.....	109.1	99.5	101.2
1900.....	105.5	99.7	107.0	1900.....	120.1	99.1	102.3
1901.....	113.7	99.5	108.2	1901.....	129.6	98.8	105.8
1902.....	124.7	98.8	108.2	1902.....	136.7	97.5	110.6
1903.....	124.7	98.4	112.8	1903.....	140.7	96.8	113.1
1904.....	120.3	98.7	114.8	1904.....	146.1	97.0	113.2
1905.....	120.3	98.6	117.8	1905.....	160.8	96.9	116.6

SAWYERS, BAND, Male.				SAWYERS, CIRCULAR, Male.			
[Data from 24 establishments 1890-1903; 30, 1904; 50, 1905.]				[Data from 17 establishments 1890-1903; 18, 1904; 25, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	98.1	100.3	101.0	1890.....	92.0	101.0	104.9
1891.....	96.2	99.9	101.9	1891.....	92.0	100.6	105.4
1892.....	96.2	100.1	101.5	1892.....	88.0	100.8	102.8
1893.....	94.2	100.2	102.5	1893.....	88.0	98.6	102.9
1894.....	98.1	100.1	97.8	1894.....	88.0	98.6	101.2
1895.....	101.9	100.0	99.8	1895.....	92.0	100.6	100.0
1896.....	98.1	99.9	98.6	1896.....	100.0	100.5	99.5
1897.....	98.1	99.9	99.5	1897.....	108.0	100.1	95.0
1898.....	109.6	99.8	98.6	1898.....	116.0	99.7	94.9
1899.....	111.5	99.9	101.0	1899.....	124.0	99.4	93.7
1900.....	121.2	99.5	105.0	1900.....	132.0	98.6	96.3
1901.....	121.2	99.5	107.7	1901.....	132.0	98.2	99.6
1902.....	128.8	98.8	114.8	1902.....	140.0	96.9	103.5
1903.....	128.8	98.7	122.0	1903.....	140.0	96.9	107.2
1904.....	125.1	98.0	119.9	1904.....	115.3	97.8	111.9
1905.....	130.7	97.9	123.7	1905.....	121.4	97.7	118.9

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

LUMBER—Concluded.

SAWYERS, GANG, Male.				TRIMMERS, Male.			
[Data from 17 establishments 1890-1903; 18, 1904; 19, 1905.]				[Data from 7 establishments 1890-1903; 36, 1904; 58, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	96.3	100.0	97.7	1890.....	73.4	100.4	113.7
1891.....	96.3	100.0	97.7	1891.....	78.1	100.3	108.9
1892.....	96.3	100.0	98.5	1892.....	87.6	100.1	106.1
1893.....	100.0	100.2	98.3	1893.....	85.9	100.2	107.2
1894.....	100.2	100.2	93.5	1894.....	79.7	100.1	97.2
1895.....	107.4	100.0	95.2	1895.....	79.7	100.1	97.4
1896.....	107.4	100.0	95.5	1896.....	100.0	99.9	90.5
1897.....	100.0	99.9	107.0	1897.....	132.8	99.7	88.9
1898.....	100.0	99.9	106.7	1898.....	131.3	99.7	94.5
1899.....	100.0	99.9	110.0	1899.....	145.3	99.7	95.5
1900.....	100.0	99.5	113.6	1900.....	154.7	99.7	98.9
1901.....	100.0	99.5	115.4	1901.....	165.6	99.7	99.2
1902.....	100.0	98.8	119.3	1902.....	151.6	99.7	96.2
1903.....	103.7	99.1	122.1	1903.....	156.3	99.7	98.1
1904.....	107.3	98.7	120.1	1904.....	174.1	99.8	104.4
1905.....	103.7	98.8	119.7	1905.....	185.2	99.7	106.0

MARBLE AND STONE WORK.

BED RUBBERS, Male.				CARVERS, Male.			
[Data from 29 establishments 1890-1903; 50, 1904; 57, 1905.]				[Data from 28 establishments 1890-1903; 39, 1904; 52, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	104.8	101.6	96.8	1890.....	95.8	100.1	96.2
1891.....	101.4	100.6	99.1	1891.....	89.2	101.2	95.4
1892.....	104.8	100.6	97.8	1892.....	93.3	98.5	96.8
1893.....	107.6	100.7	98.9	1893.....	95.0	99.2	96.2
1894.....	92.4	100.2	99.5	1894.....	114.2	102.8	96.3
1895.....	100.0	100.6	97.7	1895.....	100.8	102.7	97.0
1896.....	90.3	99.4	102.0	1896.....	96.2	101.2	100.8
1897.....	98.6	99.8	100.2	1897.....	85.8	99.5	100.7
1898.....	99.3	99.9	99.4	1898.....	95.0	100.0	102.4
1899.....	97.2	96.7	108.5	1899.....	127.5	94.7	107.3
1900.....	97.9	96.9	108.8	1900.....	139.2	94.1	106.0
1901.....	111.0	95.1	117.6	1901.....	138.3	93.8	116.1
1902.....	117.9	94.0	124.6	1902.....	121.7	92.7	125.0
1903.....	113.8	90.6	125.6	1903.....	104.2	93.0	124.8
1904.....	110.5	89.9	126.1	1904.....	100.1	92.9	123.9
1905.....	112.9	90.0	127.0	1905.....	93.0	93.0	124.3

LABORERS, Male.				LETTERERS, Male.			
[Data from 18 establishments 1890-1903; 62, 1904; 91, 1905.]				[Data from 42 establishments 1890-1903; 38, 1904; 48, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	105.9	103.0	96.9	1890.....	97.4	101.3	97.6
1891.....	103.0	102.1	96.6	1891.....	98.7	100.4	98.0
1892.....	109.4	101.6	100.4	1892.....	96.1	99.3	99.0
1893.....	104.5	101.2	102.9	1893.....	100.0	99.4	97.8
1894.....	94.1	99.7	100.1	1894.....	94.7	100.4	99.1
1895.....	94.1	99.9	99.4	1895.....	101.3	100.2	99.5
1896.....	97.0	99.9	99.7	1896.....	94.7	100.0	102.0
1897.....	99.5	98.9	102.1	1897.....	101.3	100.2	101.9
1898.....	98.5	98.1	102.1	1898.....	103.9	99.5	102.3
1899.....	94.1	94.6	96.5	1899.....	105.3	99.3	102.7
1900.....	85.6	100.4	99.4	1900.....	106.6	96.5	106.1
1901.....	106.9	99.6	105.1	1901.....	111.8	96.0	109.8
1902.....	107.9	98.9	108.6	1902.....	113.2	95.4	112.8
1903.....	95.0	99.1	112.4	1903.....	110.5	91.6	118.0
1904.....	101.8	99.5	111.9	1904.....	112.7	91.1	121.7
1905.....	107.4	99.8	111.8	1905.....	117.5	90.9	126.0

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY
OCCUPATIONS—Continued.

MARBLE AND STONE WORK—Continued.

MARBLE CUTTERS, Male.				MARBLE POLISHERS, Male.			
[Data from 58 establishments 1890-1903; 71, 1904; 76, 1905.]				[Data from 29 establishments 1890-1903; 48, 1904; 64, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99.	100.0	100.0	100.0	Average 1890-99.	100.0	100.0	100.0
1890.	106.3	102.7	95.8	1890.	99.2	102.3	97.5
1891.	100.2	100.1	101.9	1891.	105.7	101.5	96.7
1892.	98.8	99.6	100.3	1892.	108.4	100.5	99.8
1893.	96.6	99.7	99.7	1893.	99.6	100.5	100.0
1894.	98.3	100.9	95.8	1894.	103.8	100.7	93.8
1895.	89.5	100.6	95.8	1895.	101.5	100.8	93.1
1896.	93.2	100.4	100.9	1896.	85.6	99.3	101.3
1897.	95.4	99.9	101.8	1897.	89.4	99.1	102.0
1898.	98.1	99.9	101.3	1898.	93.2	99.5	103.0
1899.	124.8	96.1	106.7	1899.	111.8	95.8	112.7
1900.	120.9	95.4	108.8	1900.	117.1	96.2	112.2
1901.	130.2	95.2	115.5	1901.	119.4	95.8	118.4
1902.	128.2	95.0	123.3	1902.	120.2	96.5	122.9
1903.	133.6	93.0	129.6	1903.	120.5	93.8	128.2
1904.	97.4	95.0	121.1	1904.	113.8	93.5	125.8
1905.	106.4	95.1	122.6	1905.	103.0	93.8	127.1

SAWYERS, Male.				STONECUTTERS, GRANITE, Male.			
[Data from 35 establishments 1890-1903; 50, 1904; 53, 1905.]				[Data from 72 establishments 1890-1903; 83, 1904; 87, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99.	100.0	100.0	100.0	Average 1890-99.	100.0	100.0	100.0
1890.	97.8	101.7	95.0	1890.	121.0	100.0	102.8
1891.	97.8	101.6	96.1	1891.	113.5	99.7	104.8
1892.	98.9	101.7	95.4	1892.	113.8	100.0	103.4
1893.	97.8	100.8	97.2	1893.	100.4	100.8	99.7
1894.	98.9	100.7	98.2	1894.	91.0	100.2	99.0
1895.	100.0	101.1	96.5	1895.	88.4	99.9	99.5
1896.	101.1	98.7	104.2	1896.	91.5	100.1	99.0
1897.	103.3	98.2	104.9	1897.	87.5	100.5	97.1
1898.	103.3	98.0	105.3	1898.	90.1	100.6	95.6
1899.	103.3	97.4	106.9	1899.	103.0	98.1	98.1
1900.	105.5	96.8	108.4	1900.	116.3	95.2	108.1
1901.	109.9	95.3	113.4	1901.	109.9	94.8	106.6
1902.	105.5	95.8	111.4	1902.	110.5	94.2	108.5
1903.	108.8	95.6	115.5	1903.	116.1	92.3	116.5
1904.	107.2	94.5	120.2	1904.	108.8	92.2	119.1
1905.	120.7	93.6	122.1	1905.	96.3	92.6	116.7

STONECUTTERS, SOFT STONE, Male.				STONECUTTERS, NOT SPECIFIED, Male.			
[Data from 49 establishments 1890-1903; 64, 1904; 83, 1905.]				[Data from 30 establishments 1890-1903; 15, 1904, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99.	100.0	100.0	100.0	Average 1890-99.	100.0	100.0	100.0
1890.	110.3	103.1	100.5	1890.	108.9	103.4	99.7
1891.	109.4	100.5	104.2	1891.	100.2	101.8	101.4
1892.	105.1	100.3	103.9	1892.	114.7	101.9	101.8
1893.	103.3	101.2	100.5	1893.	109.6	100.7	102.5
1894.	91.4	100.8	97.2	1894.	94.2	98.7	102.5
1895.	91.3	100.2	96.2	1895.	92.3	100.6	98.1
1896.	98.8	99.7	97.0	1896.	94.4	99.3	99.6
1897.	87.2	98.4	98.7	1897.	90.9	97.9	99.9
1898.	115.9	97.7	101.9	1898.	83.7	98.0	96.7
1899.	87.4	98.1	99.9	1899.	112.1	96.8	97.8
1900.	85.8	98.5	100.4	1900.	99.8	95.8	98.7
1901.	88.3	97.2	102.5	1901.	128.7	94.4	104.1
1902.	96.3	96.9	108.6	1902.	131.7	94.1	107.7
1903.	92.3	95.7	116.2	1903.	117.5	93.9	112.3
1904.	100.3	95.7	117.2	1904.	97.0	93.4	113.1
1905.	94.6	95.8	117.1	1905.	100.5	93.3	112.0

WAGES AND HOURS IN THE MARBLE INDUSTRY

TABLE II.—RELATIVE WAGES AND HOURS OF MARBLE POLISHERS, CUTTERS, AND FINISHERS, 1900-1905.

MARBLE AND STONE POLISHERS.

STONE POLISHERS, Male.				FINISHERS, Male.			
[Data from Department of Labor, Bureau of Labor Statistics, 1900-1905.]				[Data from Department of Labor, Bureau of Labor Statistics, 1900-1905.]			
Year	Hourly Wage	Hourly Wage	Hourly Wage	Hourly Wage	Hourly Wage	Hourly Wage	Hourly Wage
Average 1900-05	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1900	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1901	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1902	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1903	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1904	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1905	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1906	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1907	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1908	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1909	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1910	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1911	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1912	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1913	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1914	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1915	1.00	1.00	1.00	1.00	1.00	1.00	1.00

PAPEE AND WOOD PULP.

BACK TENDERS, Male.				BEATERS, Male.			
[Data from Department of Labor, Bureau of Labor Statistics, 1900-1905.]				[Data from Department of Labor, Bureau of Labor Statistics, 1900-1905.]			
Year	Hourly Wage	Hourly Wage	Hourly Wage	Hourly Wage	Hourly Wage	Hourly Wage	Hourly Wage
Average 1900-05	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1900	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1901	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1902	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1903	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1904	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1905	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1906	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1907	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1908	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1909	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1910	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1911	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1912	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1913	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1914	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1915	1.00	1.00	1.00	1.00	1.00	1.00	1.00

BLACK ASH BURNERS, Male.

[Data from Department of Labor, Bureau of Labor Statistics, 1900-1905.]

Year	Hourly Wage	Hourly Wage	Hourly Wage	Hourly Wage	Hourly Wage	Hourly Wage	Hourly Wage
Average 1900-05	106.3	106.3	106.3	106.3	106.3	106.3	106.3
1900	111.8	107.1	106.3	106.3	106.3	106.3	106.3
1901	106.5	102.7	106.3	106.3	106.3	106.3	106.3
1902	100.0	100.0	106.3	106.3	106.3	106.3	106.3
1903	96.2	100.0	106.3	106.3	106.3	106.3	106.3
1904	111.8	100.0	106.3	106.3	106.3	106.3	106.3
1905	111.8	100.0	106.3	106.3	106.3	106.3	106.3
1906	105.3	100.0	106.3	106.3	106.3	106.3	106.3
1907	147.1	100.0	106.3	106.3	106.3	106.3	106.3
1908	96.2	100.0	106.3	106.3	106.3	106.3	106.3
1909	70.6	100.0	106.3	106.3	106.3	106.3	106.3
1910	126.4	100.0	106.3	106.3	106.3	106.3	106.3
1911	64.7	100.0	106.3	106.3	106.3	106.3	106.3
1912	64.7	100.0	106.3	106.3	106.3	106.3	106.3
1913	94.1	100.0	106.3	106.3	106.3	106.3	106.3
1914	111.7	100.0	106.3	106.3	106.3	106.3	106.3
1915	111.7	100.0	106.3	106.3	106.3	106.3	106.3

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

PAPER AND WOOD PULP—Continued.

CALENDREERS, Male.				CALENDREERS, Female.			
[Data for employees from 4 establishments 1890-1903. Data for hours and wages from 5 establishments 1890-1892, 1894-1903; 4, 1893. Data from 7 establishments 1904; 15, 1905.]				[Data from 1 establishment 1890-1904; 2, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	80.0	102.4	94.2	1890.....	105.3	100.0	96.0
1891.....	92.7	101.7	93.2	1891.....	105.3	100.0	107.3
1892.....	100.0	101.3	92.7	1892.....	126.3	100.0	102.3
1893.....	110.9	99.9	98.9	1893.....	126.3	100.0	109.7
1894.....	100.0	101.3	97.2	1894.....	84.2	100.0	93.6
1895.....	100.0	101.3	102.6	1895.....	105.3	100.0	91.0
1896.....	92.7	101.7	103.3	1896.....	100.0	100.0	108.4
1897.....	89.1	102.2	101.9	1897.....	94.7	100.0	95.9
1898.....	120.0	100.8	98.7	1898.....	94.7	100.0	94.4
1899.....	114.5	87.5	117.0	1899.....	68.4	100.0	101.1
1900.....	140.0	87.1	117.7	1900.....	78.9	100.0	105.9
1901.....	169.1	85.5	122.5	1901.....	78.9	100.0	101.0
1902.....	172.7	84.5	122.9	1902.....	84.2	94.8	99.3
1903.....	190.9	85.1	127.6	1903.....	100.0	94.8	97.7
1904.....	201.0	86.0	127.9	1904.....	131.6	94.8	104.5
1905.....	236.8	84.0	132.7	1905.....	118.0	94.8	107.2

COLOR MIXERS, Male.				CUTTERS, Male.			
[Data for employees from 1 establishment 1890-1903. Data for hours and wages from 2 establishments 1890-1892, 1894-1903; 1, 1893. Data from 1 establishment 1904; 2, 1905.]				[Data for employees from 5 establishments 1890-1903. Data for hours and wages from 6 establishments 1890-1892, 1894-1903; 5, 1893. Data from 10 establishments 1904; 18, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	83.3	102.7	90.2	1890.....	74.6	101.6	99.8
1891.....	83.3	102.7	90.4	1891.....	78.0	101.6	100.8
1892.....	83.3	102.7	92.5	1892.....	84.7	101.6	100.4
1893.....	66.7	97.2	96.8	1893.....	96.6	101.5	96.2
1894.....	83.3	102.7	99.4	1894.....	113.6	101.5	98.1
1895.....	100.0	102.0	99.7	1895.....	113.6	101.7	96.8
1896.....	116.7	101.5	105.0	1896.....	110.2	101.7	96.6
1897.....	116.7	101.5	105.0	1897.....	108.5	101.7	97.4
1898.....	116.7	101.5	105.0	1898.....	111.9	101.7	97.6
1899.....	133.3	85.5	115.8	1899.....	113.6	85.4	116.4
1900.....	150.0	84.8	113.2	1900.....	116.9	85.0	116.7
1901.....	150.0	84.8	114.8	1901.....	130.5	84.9	115.0
1902.....	133.3	85.5	113.7	1902.....	132.2	84.9	118.2
1903.....	150.0	84.8	123.6	1903.....	154.2	84.4	122.9
1904.....	216.7	84.8	121.1	1904.....	137.9	81.5	131.8
1905.....	276.9	84.0	120.4	1905.....	133.1	83.1	128.0

CUTTERS, Female.				ENAMELERS, Male.			
[Data from 6 establishments 1890-1903; 13, 1904; 20, 1905.]				[Data from 2 establishments 1890-1904; 3, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	107.6	102.7	99.2	1890.....	55.6	101.9	95.2
1891.....	127.2	101.7	99.0	1891.....	77.8	101.9	96.3
1892.....	96.7	101.8	99.2	1892.....	80.6	101.9	93.6
1893.....	103.3	96.2	101.9	1893.....	116.7	101.9	98.2
1894.....	88.0	100.3	98.8	1894.....	122.2	101.9	96.4
1895.....	96.7	99.6	99.2	1895.....	105.6	101.9	97.2
1896.....	98.9	99.5	99.1	1896.....	122.2	101.9	97.2
1897.....	97.8	99.6	99.4	1897.....	113.9	101.9	97.2
1898.....	92.4	99.9	99.6	1898.....	105.6	101.9	100.1
1899.....	89.1	95.9	105.0	1899.....	88.9	82.8	126.8
1900.....	93.5	95.3	104.2	1900.....	86.1	82.8	128.9
1901.....	97.8	94.5	105.0	1901.....	94.4	82.7	134.8
1902.....	106.5	94.6	102.0	1902.....	138.9	82.3	135.1
1903.....	110.9	93.9	109.0	1903.....	152.8	82.3	142.1
1904.....	111.8	94.2	110.8	1904.....	175.0	82.5	141.5
1905.....	113.8	94.4	114.7	1905.....	189.6	82.2	140.9

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

PAPER AND WOOD PULP—Continued.

FINISHERS, Male.				FINISHERS, Female.			
[Data from 14 establishments 1890-1903; 16, 1904; 25, 1905.]				[Data for employees from 4 establishments 1890-1903. Data for hours and wages from 5 establishments 1890-1892, 1894-1903; 4, 1893. Data from 6 establishments 1904; 11, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	84.4	100.5	100.2	1890.....	87.5	100.5	93.9
1891.....	87.5	100.4	101.9	1891.....	112.5	100.2	105.2
1892.....	90.6	100.2	100.5	1892.....	130.0	100.1	103.0
1893.....	101.6	99.0	103.7	1893.....	122.5	99.6	105.0
1894.....	100.0	99.8	101.6	1894.....	77.5	100.2	94.8
1895.....	93.8	100.0	100.9	1895.....	92.5	99.8	99.6
1896.....	95.3	100.0	99.8	1896.....	95.0	99.8	103.9
1897.....	112.5	99.6	97.3	1897.....	92.5	99.8	98.5
1898.....	114.1	100.2	96.7	1898.....	97.5	99.9	94.5
1899.....	115.6	100.2	97.4	1899.....	90.0	100.1	101.2
1900.....	128.1	100.2	98.2	1900.....	107.5	99.9	103.4
1901.....	128.1	100.3	98.8	1901.....	105.0	100.0	100.6
1902.....	125.0	99.1	101.4	1902.....	90.0	97.4	105.0
1903.....	150.0	98.1	105.8	1903.....	107.5	96.9	107.4
1904.....	152.8	98.6	105.3	1904.....	93.6	97.6	129.3
1905.....	153.6	98.9	107.0	1905.....	95.5	97.1	133.3

LABORERS, Male.				MACHINE TENDERS, Male.			
[Data from 4 establishments 1890-1903; 16, 1904; 28, 1905.]				[Data for employees from 15 establishments 1890-1903. Data for hours and wages from 16 establishments 1890-1892, 1894-1903; 15, 1893. Data from 17 establishments 1904; 27, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	113.6	98.4	97.9	1890.....	89.9	100.6	97.1
1891.....	109.0	98.9	98.7	1891.....	97.7	100.6	99.5
1892.....	98.9	100.5	98.8	1892.....	97.7	100.0	100.0
1893.....	100.0	100.8	97.5	1893.....	104.7	99.6	100.4
1894.....	96.6	100.3	97.8	1894.....	97.7	99.9	99.7
1895.....	103.4	101.4	99.5	1895.....	101.6	100.2	99.3
1896.....	90.4	102.1	99.2	1896.....	102.3	100.3	98.6
1897.....	93.8	101.5	99.9	1897.....	100.0	100.8	99.5
1898.....	84.7	102.3	98.7	1898.....	101.6	101.0	100.0
1899.....	108.5	93.8	112.2	1899.....	106.2	97.0	105.7
1900.....	102.3	96.1	111.0	1900.....	118.6	97.9	104.1
1901.....	134.5	91.7	115.5	1901.....	124.0	91.3	111.6
1902.....	118.1	96.6	109.1	1902.....	124.8	88.9	113.4
1903.....	127.1	96.2	118.5	1903.....	133.3	87.9	116.6
1904.....	134.5	96.1	118.1	1904.....	141.4	84.7	120.1
1905.....	142.3	96.4	119.5	1905.....	139.4	86.6	123.1

PRESS TENDERS, Male.				PULP GRINDERS, Male.			
[Data for employees from 3 establishments 1890-1903. Data for hours and wages from 3 establishments 1890-1893; 4, 1894-1903. Data from 3 establishments 1904; 8, 1905.]				[Data for employees from 3 establishments 1890-1903. Data for hours and wages from 4 establishments 1890-1892, 1894-1903; 3, 1893. Data from 5 establishments 1904; 10, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	116.7	100.0	97.9	1890.....	93.5	100.0	99.8
1891.....	116.7	100.0	97.9	1891.....	93.5	100.0	99.8
1892.....	116.7	100.0	97.9	1892.....	93.5	100.0	99.8
1893.....	100.0	100.0	96.5	1893.....	103.2	100.0	96.4
1894.....	91.7	100.0	101.5	1894.....	103.2	100.0	99.9
1895.....	100.0	100.0	101.6	1895.....	96.8	100.0	100.3
1896.....	100.0	100.0	101.6	1896.....	103.2	100.0	101.1
1897.....	100.0	100.0	101.6	1897.....	96.8	100.0	101.1
1898.....	91.7	100.0	101.5	1898.....	96.8	100.0	101.1
1899.....	100.0	100.0	101.6	1899.....	103.2	100.0	100.7
1900.....	108.3	100.0	104.0	1900.....	103.2	100.0	100.7
1901.....	108.3	100.0	106.2	1901.....	103.2	100.0	101.5
1902.....	125.0	100.0	106.2	1902.....	103.2	100.0	101.5
1903.....	100.0	100.0	132.1	1903.....	93.5	100.0	115.4
1904.....	90.0	100.0	132.9	1904.....	114.9	83.7	127.8
1905.....	80.5	100.2	132.0	1905.....	106.6	92.3	121.4

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

PAPER AND WOOD PULP—Concluded.

RAG SORTERS, Male. [Data from 2 establishments.]				RAG SORTERS, Female. [Data from 5 establishments 1890-1903; 7, 1904; 11, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	102.0	98.6	94.5	1890.....	94.2	101.2	97.6
1891.....	96.0	99.5	97.4	1891.....	108.3	99.9	100.2
1892.....	110.0	98.1	99.8	1892.....	109.6	101.0	99.8
1893.....	104.0	98.9	101.1	1893.....	112.8	99.5	99.5
1894.....	92.0	99.8	103.1	1894.....	90.4	98.6	102.3
1895.....	98.0	99.8	102.4	1895.....	104.5	99.3	101.5
1896.....	104.0	100.2	99.2	1896.....	108.3	98.9	100.3
1897.....	118.0	98.5	101.9	1897.....	86.5	100.1	99.2
1898.....	98.0	103.3	98.0	1898.....	86.5	101.0	101.4
1899.....	88.0	103.3	102.3	1899.....	100.6	100.5	97.6
1900.....	114.0	102.3	101.2	1900.....	117.9	100.5	99.8
1901.....	88.0	96.2	103.1	1901.....	92.3	102.6	100.1
1902.....	110.0	103.5	101.0	1902.....	87.2	101.1	96.7
1903.....	134.0	103.2	103.8	1903.....	111.5	101.6	97.6
1904.....	139.4	102.9	103.5	1904.....	127.8	101.8	103.5
1905.....	91.1	112.5	97.4	1905.....	123.7	104.6	100.1

WOOD COOKERS, Male. [Data for employees from 1 establishment 1890-1903. Data for hours and wages from 1 establishment 1890-1893; 2, 1894-1903. Data from 4 establishments 1904; 9, 1905.]				WOOD PREPARERS, Male. [Data for employees from 3 establishments 1890-1903. Data for hours and wages from 4 establishments 1890-1892, 1901-1903; 3, 1893; 5, 1894-1900. Data from 7 establishments 1904; 12, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	75.0	97.5	95.3	1890.....	63.2	99.3	101.4
1891.....	68.8	97.5	94.7	1891.....	63.2	99.3	100.6
1892.....	56.3	97.5	98.3	1892.....	73.7	100.3	100.4
1893.....	43.8	97.5	99.8	1893.....	100.0	100.8	103.1
1894.....	25.0	110.5	97.7	1894.....	94.7	100.6	97.7
1895.....	100.0	104.0	99.7	1895.....	105.3	100.3	98.4
1896.....	106.0	104.0	99.6	1896.....	131.6	100.3	98.7
1897.....	175.0	101.8	96.2	1897.....	121.1	100.2	98.8
1898.....	187.5	101.6	99.2	1898.....	126.8	100.4	98.7
1899.....	137.5	88.4	119.3	1899.....	131.6	98.5	102.0
1900.....	162.5	87.2	122.3	1900.....	126.3	98.2	103.8
1901.....	200.0	85.8	121.4	1901.....	126.3	96.7	114.2
1902.....	200.0	85.8	119.3	1902.....	126.3	96.7	118.1
1903.....	118.8	87.3	131.1	1903.....	110.5	95.3	133.6
1904.....	129.9	84.0	135.2	1904.....	124.8	94.6	134.3
1905.....	132.0	85.9	142.3	1905.....	130.8	94.4	135.6

PLANING MILL.

CARPENTERS, Male. [Data from 65 establishments 1890-1903; 96, 1904; 93, 1905.]				FRAMERS, Male. [Data from 26 establishments 1890-1903; 35, 1904; 33, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	94.7	101.9	98.7	1890.....	87.2	100.5	100.3
1891.....	94.3	101.1	100.0	1891.....	91.0	100.0	101.5
1892.....	100.3	101.3	99.2	1892.....	96.3	100.0	103.0
1893.....	98.7	100.2	100.2	1893.....	95.2	99.8	102.3
1894.....	92.1	100.1	96.7	1894.....	89.9	100.5	98.1
1895.....	92.7	99.8	98.0	1895.....	105.9	99.8	97.0
1896.....	104.7	98.0	100.8	1896.....	102.7	100.2	95.9
1897.....	101.7	99.1	101.1	1897.....	105.9	100.2	97.6
1898.....	103.4	99.4	102.3	1898.....	110.6	100.0	100.2
1899.....	116.9	99.0	102.8	1899.....	113.3	98.9	104.0
1900.....	122.5	98.4	106.7	1900.....	111.2	99.2	105.2
1901.....	129.9	98.2	108.0	1901.....	119.1	98.6	108.0
1902.....	132.8	97.0	113.6	1902.....	115.4	97.9	111.3
1903.....	135.9	96.5	119.3	1903.....	123.4	97.9	114.2
1904.....	138.4	96.3	122.4	1904.....	126.9	98.0	113.7
1905.....	144.0	96.3	123.4	1905.....	133.5	98.2	116.2

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

PLANING MILL—Continued.

GLAZIERS, Male.				LABORERS, Male.			
[Data from 6 establishments 1890-1903; 34, 1904; 40, 1905.]				[Data from 13 establishments 1890-1903; 80, 1904; 91, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	81.8	100.5	95.7	1890.....	85.9	100.1	102.4
1891.....	81.8	100.5	99.0	1891.....	89.8	100.1	105.3
1892.....	81.8	100.5	100.5	1892.....	88.7	100.1	101.5
1893.....	81.8	100.5	104.7	1893.....	87.1	99.9	98.3
1894.....	90.9	99.5	102.8	1894.....	93.8	100.0	94.1
1895.....	100.0	99.6	97.7	1895.....	102.0	100.0	95.9
1896.....	100.0	99.6	96.8	1896.....	105.1	99.8	96.5
1897.....	100.0	99.6	100.7	1897.....	103.5	99.9	96.0
1898.....	100.0	99.6	99.8	1898.....	107.0	100.0	101.5
1899.....	136.4	100.0	102.4	1899.....	135.9	100.2	108.5
1900.....	145.5	99.3	106.7	1900.....	110.2	99.9	102.8
1901.....	181.8	98.3	105.7	1901.....	134.4	100.0	110.8
1902.....	200.0	98.6	103.1	1902.....	127.7	100.0	110.8
1903.....	254.5	99.1	107.0	1903.....	115.6	99.9	113.3
1904.....	240.9	98.4	111.0	1904.....	121.4	100.4	110.4
1905.....	287.2	98.1	113.2	1905.....	129.4	100.0	112.7

MACHINE WOODWORKERS, Male.				SAWYERS, BAND, Male.			
[Data from 92 establishments 1890-1903; 110, 1904; 112, 1905.]				[Data from 31 establishments 1890-1903; 53, 1904; 59, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	97.3	101.2	98.4	1890.....	95.9	101.7	100.7
1891.....	97.4	100.6	99.2	1891.....	95.9	100.2	101.5
1892.....	98.4	100.6	99.7	1892.....	98.0	100.0	100.9
1893.....	97.9	100.1	99.6	1893.....	95.9	100.2	100.0
1894.....	96.0	100.4	97.4	1894.....	95.9	101.5	97.6
1895.....	97.8	99.6	98.8	1895.....	95.9	98.4	99.3
1896.....	99.8	99.4	99.7	1896.....	102.0	99.8	98.6
1897.....	101.9	99.7	101.0	1897.....	104.1	99.6	99.9
1898.....	105.8	99.2	102.0	1898.....	106.1	99.5	100.6
1899.....	107.3	99.0	104.0	1899.....	106.1	99.2	101.2
1900.....	111.4	98.9	106.6	1900.....	110.2	100.5	102.1
1901.....	113.7	98.7	108.7	1901.....	112.2	100.5	103.6
1902.....	120.8	97.3	113.0	1902.....	116.3	99.7	106.6
1903.....	122.2	96.7	116.3	1903.....	122.4	99.5	110.4
1904.....	128.6	96.7	115.7	1904.....	128.7	98.9	112.0
1905.....	133.2	96.7	117.4	1905.....	140.0	98.5	115.1

SAWYERS, CIRCULAR, Male.				SAWYERS, JIG, Male.			
[Data from 45 establishments 1890-1903; 65, 1904; 73, 1905.]				[Data from 19 establishments 1890-1903; 27, 1904; 23, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	92.1	100.8	100.2	1890.....	100.0	102.6	98.2
1891.....	93.8	100.4	100.5	1891.....	100.0	100.2	100.4
1892.....	93.3	100.4	100.4	1892.....	100.0	100.2	100.1
1893.....	93.8	100.1	101.2	1893.....	103.8	100.0	99.5
1894.....	98.3	100.5	98.8	1894.....	103.8	102.3	97.3
1895.....	98.3	99.5	98.8	1895.....	103.8	96.9	101.0
1896.....	101.7	99.1	98.1	1896.....	100.0	99.8	98.3
1897.....	102.8	99.9	98.5	1897.....	100.0	99.4	99.7
1898.....	111.8	99.6	99.7	1898.....	100.0	99.4	100.9
1899.....	116.3	99.5	103.6	1899.....	103.8	98.9	104.5
1900.....	120.8	99.5	105.0	1900.....	107.7	101.4	103.7
1901.....	128.7	99.1	108.5	1901.....	107.7	101.6	106.1
1902.....	131.5	99.0	110.8	1902.....	103.8	100.4	107.9
1903.....	137.1	98.3	114.1	1903.....	107.7	99.8	110.0
1904.....	134.1	98.0	114.1	1904.....	111.0	99.0	112.5
1905.....	144.9	98.4	114.8	1905.....	108.9	99.1	112.2

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

PLANING MILL—Concluded.

SAWYERS, NOT SPECIFIED, Male.

[Data from 17 establishments 1890-1903; 22, 1904; 21, 1 05.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	1898.....	96.7	98.6	101.0
1890.....	96.7	101.3	99.0	1899.....	103.3	98.4	103.2
1891.....	96.7	100.0	99.5	1900.....	100.0	97.6	105.3
1892.....	103.3	101.1	101.5	1901.....	100.0	96.3	110.9
1893.....	100.0	100.3	100.8	1902.....	103.3	93.6	120.2
1894.....	93.3	100.6	90.2	1903.....	100.0	93.9	117.9
1895.....	96.7	100.4	97.4	1904.....	105.1	92.7	121.2
1896.....	96.7	98.7	100.7	1905.....	100.2	92.4	124.4
1897.....	100.0	99.5	100.8				

POTTERY.

DIPPERS, Male.

[Data from 4 establishments 1890-1904; 6, 1905.]

Average 1890-99..	100.0	100.0	100.0
1890.....	100.0	97.6	95.1
1891.....	100.0	97.6	95.1
1892.....	100.0	97.6	96.3
1893.....	100.0	97.6	106.2
1894.....	100.0	97.6	103.7
1895.....	80.0	99.7	97.4
1896.....	80.0	99.7	88.9
1897.....	80.0	104.2	104.9
1898.....	80.0	104.2	104.9
1899.....	80.0	104.2	107.4
1900.....	80.0	99.7	101.1
1901.....	80.0	101.9	109.6
1902.....	80.0	101.9	109.6
1903.....	80.0	101.9	113.5
1904.....	80.0	101.9	116.5
1905.....	80.0	101.9	123.8

JIGGER MEN, Male.

[Data from 3 establishments 1890-1903; 4, 1904; 6, 1905.]

Average 1890-99..	100.0	100.0	100.0
1890.....	107.1	99.7	100.7
1891.....	107.1	99.7	101.2
1892.....	92.9	100.1	97.8
1893.....	121.4	99.4	104.7
1894.....	114.3	99.6	99.0
1895.....	78.6	100.7	93.6
1896.....	100.0	99.9	97.1
1897.....	85.7	100.4	92.2
1898.....	92.9	100.1	102.1
1899.....	85.7	100.4	111.6
1900.....	85.7	101.4	101.9
1901.....	85.7	100.4	108.8
1902.....	85.7	100.4	110.9
1903.....	107.1	96.1	113.2
1904.....	85.7	97.2	118.8
1905.....	89.8	97.2	122.3

KILN FIREMEN, Male.

[Data from 3 establishments 1890-1903; 4, 1904; 6, 1905.]

Average 1890-99..	100.0	100.0	100.0
1890.....	100.0	100.0	91.5
1891.....	100.0	100.0	91.5
1892.....	100.0	100.0	101.0
1893.....	100.0	100.0	101.0
1894.....	100.0	100.0	101.0
1895.....	100.0	100.0	95.3
1896.....	100.0	100.0	95.3
1897.....	100.0	100.0	114.2
1898.....	100.0	100.0	114.2
1899.....	100.0	100.0	95.3
1900.....	100.0	100.0	95.3
1901.....	100.0	100.0	95.3
1902.....	100.0	100.0	104.7
1903.....	100.0	100.0	110.4
1904.....	100.0	100.0	112.3
1905.....	113.0	102.7	108.4

KILN MEN, Male.

[Data from 5 establishments 1890-1904; 7, 1905.]

Average 1890-99..	100.0	100.0	100.0
1890.....	93.2	99.8	101.3
1891.....	104.5	99.2	104.2
1892.....	102.3	98.3	103.8
1893.....	102.3	99.3	104.0
1894.....	102.3	99.3	101.5
1895.....	100.0	99.4	102.2
1896.....	88.6	101.3	94.0
1897.....	97.7	100.6	96.2
1898.....	95.5	100.8	95.6
1899.....	106.8	101.1	97.3
1900.....	113.6	100.7	98.7
1901.....	102.3	101.4	95.7
1902.....	104.5	101.3	98.6
1903.....	102.3	100.9	98.4
1904.....	99.5	100.7	99.6
1905.....	97.9	100.8	101.1

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

POTTERY—Concluded.

MOLD MAKERS, Male.				PRESSERS, Male.			
[Data from 5 establishments 1890-1904; 7, 1905.]				[Data from 5 establishments 1890-1904; 7, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	100.0	100.3	99.7	1890.....	97.0	99.5	101.7
1891.....	100.0	100.3	99.3	1891.....	110.4	99.6	105.6
1892.....	100.0	100.3	99.1	1892.....	94.8	99.9	103.0
1893.....	100.0	100.3	94.1	1893.....	100.7	99.8	110.7
1894.....	100.0	100.3	97.8	1894.....	92.6	100.1	94.9
1895.....	100.0	100.3	97.5	1895.....	88.1	100.1	87.9
1896.....	100.0	100.3	97.3	1896.....	91.1	100.2	92.7
1897.....	116.7	99.5	96.0	1897.....	108.9	99.9	99.9
1898.....	116.7	99.5	114.1	1898.....	111.1	100.1	101.2
1899.....	133.3	98.9	105.0	1899.....	108.1	100.6	102.4
1900.....	133.3	98.9	101.2	1900.....	103.7	100.5	94.4
1901.....	133.3	98.9	104.2	1901.....	104.4	100.3	102.1
1902.....	133.3	98.9	105.5	1902.....	92.6	100.9	99.5
1903.....	133.3	97.6	114.3	1903.....	105.2	100.2	103.6
1904.....	216.6	100.6	103.3	1904.....	97.0	99.8	116.4
1905.....	254.8	101.0	102.0	1905.....	91.1	100.0	114.3

SAGGER MAKERS, Male.				SETTERS-OUT, Male.			
[Data from 4 establishments 1890-1904; 6, 1905.]				[Data from 4 establishments 1890-1904; 6, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	116.7	100.7	99.7	1890.....	100.0	100.0	100.7
1891.....	116.7	100.7	99.6	1891.....	100.0	100.0	100.7
1892.....	116.7	100.7	99.4	1892.....	100.0	100.0	100.3
1893.....	100.0	100.0	98.0	1893.....	100.0	100.0	100.9
1894.....	100.0	100.0	99.1	1894.....	100.0	100.0	99.5
1895.....	100.0	100.0	97.4	1895.....	100.0	100.0	99.5
1896.....	100.0	100.0	97.6	1896.....	100.0	100.0	101.1
1897.....	100.0	100.0	96.6	1897.....	100.0	100.0	99.5
1898.....	65.7	99.7	107.6	1898.....	100.0	100.0	119.4
1899.....	83.3	98.3	105.0	1899.....	100.0	100.0	100.1
1900.....	100.0	99.3	105.2	1900.....	100.0	100.0	100.4
1901.....	100.0	99.3	103.5	1901.....	100.0	100.0	100.2
1902.....	100.0	99.3	106.5	1902.....	100.0	100.0	101.3
1903.....	100.0	98.0	107.6	1903.....	100.0	98.8	100.7
1904.....	100.0	98.0	108.4	1904.....	100.0	98.8	101.5
1905.....	100.0	97.3	117.7	1905.....	100.0	98.8	101.2

PRINTING AND PUBLISHING, BOOK AND JOB.

BOOKBINDERS, Male.				COMPOSITORS, Male.			
[Data for employees from 32 establishments 1890-1903. Data for hours and wages from 32 establishments 1890-1894; 33, 1895-1903. Data from 55 establishments 1904; 110, 1905.]				[Data from 85 establishments 1890-1903; 96, 1904; 152, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	57.6	101.1	96.1	1890.....	92.9	101.0	97.7
1891.....	59.1	101.0	96.2	1891.....	93.1	101.0	98.8
1892.....	92.2	100.8	98.1	1892.....	94.4	100.9	98.9
1893.....	95.3	100.3	100.0	1893.....	95.3	100.4	99.6
1894.....	93.0	100.2	99.3	1894.....	97.5	100.3	100.3
1895.....	91.5	100.6	99.5	1895.....	99.6	100.2	99.9
1896.....	99.6	100.4	100.2	1896.....	99.4	100.0	99.4
1897.....	112.0	99.5	102.5	1897.....	105.9	99.9	100.3
1898.....	117.8	98.8	103.3	1898.....	107.9	99.5	101.0
1899.....	121.7	97.2	104.8	1899.....	113.6	96.9	104.3
1900.....	129.1	96.2	104.9	1900.....	122.2	94.6	107.3
1901.....	131.8	95.6	108.9	1901.....	120.8	93.7	109.6
1902.....	134.1	94.8	111.1	1902.....	116.7	92.4	113.7
1903.....	136.8	94.5	111.9	1903.....	120.0	92.4	115.7
1904.....	141.9	94.2	115.0	1904.....	118.3	91.5	119.6
1905.....	150.0	93.9	115.9	1905.....	122.8	91.1	122.3

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

PRINTING AND PUBLISHING, BOOK AND JOB—Continued.

COMPOSITORS, Female.				ELECTROTYPERS, Male.			
[Data for employees from 3 establishments 1890-1903. Data for hours and wages from 5 establishments 1890, 1891, 1893-1896, 1898, 1899; 6, 1892, 1897; 4, 1900; 3, 1901-1903. Data from 6 establishments 1904; 18, 1905.]				[Data from 4 establishments 1890-1903; 15, 1904; 22, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	100.0	103.3	95.0	1890.....	97.4	100.3	100.7
1891.....	100.0	103.6	94.9	1891.....	97.4	100.3	100.7
1892.....	96.0	100.4	98.9	1892.....	94.7	100.4	100.6
1893.....	104.0	99.8	101.2	1893.....	92.1	100.1	101.4
1894.....	100.0	98.7	100.2	1894.....	97.4	100.3	100.2
1895.....	96.0	98.5	105.0	1895.....	100.0	100.5	98.8
1896.....	105.0	98.8	101.4	1896.....	100.0	100.5	99.1
1897.....	116.0	98.7	102.7	1897.....	110.5	100.7	99.6
1898.....	100.0	99.4	99.2	1898.....	107.9	99.7	99.8
1899.....	96.0	98.8	101.5	1899.....	105.3	97.1	99.7
1900.....	100.0	99.2	107.8	1900.....	97.4	97.2	100.1
1901.....	112.0	96.2	109.2	1901.....	100.0	96.4	100.4
1902.....	112.0	96.2	109.2	1902.....	105.3	96.4	105.1
1903.....	124.0	96.2	116.0	1903.....	102.6	96.4	105.2
1904.....	127.9	92.0	122.1	1904.....	105.8	95.5	108.2
1905.....	139.5	91.8	134.6	1905.....	104.4	93.8	109.4

PRESS FEEDERS, Male.				PRESS FEEDERS, Female.			
[Data from 23 establishments 1890-1903; 65, 1904; 132, 1905.]				[Data for employees from 4 establishments 1890-1903. Data for hours and wages from 5 establishments 1890-1897, 1900, 1901; 6, 1898, 1899, 1902, 1903. Data from 10 establishments 1904; 38, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	84.1	100.8	97.9	1890.....	94.1	100.6	99.3
1891.....	85.0	100.3	100.0	1891.....	94.1	100.6	99.2
1892.....	89.0	100.3	99.0	1892.....	88.2	100.6	100.0
1893.....	93.1	100.1	98.5	1893.....	97.1	100.6	98.5
1894.....	92.3	99.9	100.1	1894.....	91.2	100.6	98.2
1895.....	102.0	100.3	101.1	1895.....	91.2	100.5	97.5
1896.....	104.5	100.4	99.2	1896.....	91.2	100.6	99.9
1897.....	100.8	100.4	99.2	1897.....	102.9	100.6	99.6
1898.....	117.9	98.9	101.6	1898.....	102.9	98.6	102.5
1899.....	122.4	98.6	103.5	1899.....	147.1	96.6	105.3
1900.....	130.5	95.3	119.8	1900.....	129.4	92.2	108.9
1901.....	124.8	95.5	120.1	1901.....	132.4	92.2	111.5
1902.....	136.6	94.2	121.5	1902.....	126.5	92.1	114.4
1903.....	134.1	94.0	124.8	1903.....	117.6	91.8	116.9
1904.....	136.6	93.6	126.7	1904.....	140.1	91.8	127.7
1905.....	140.0	94.3	129.7	1905.....	137.5	92.2	128.8

PRESSMEN, Male.				PROOF READERS, Male.			
[Data from 64 establishments 1890-1903; 87, 1904; 153, 1905.]				[Data for employees from 11 establishments 1890-1903. Data for hours and wages from 13 establishments 1890, 1891; 12, 1892-1894, 1902, 1903; 11, 1895-1901. Data from 33 establishments 1904; 56, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	90.0	100.7	97.8	1890.....	103.6	100.6	100.6
1891.....	93.0	100.5	99.0	1891.....	103.6	100.6	101.1
1892.....	94.0	100.5	99.4	1892.....	103.6	100.6	98.9
1893.....	95.8	100.5	98.9	1893.....	103.6	100.6	100.0
1894.....	95.2	100.2	99.3	1894.....	96.4	100.6	99.4
1895.....	96.9	100.2	99.6	1895.....	92.9	100.7	100.8
1896.....	101.0	100.3	99.5	1896.....	100.0	100.7	99.9
1897.....	105.0	100.3	100.8	1897.....	100.0	100.7	100.1
1898.....	112.5	99.6	101.0	1898.....	100.0	100.1	101.0
1899.....	115.7	97.3	104.7	1899.....	107.1	94.6	98.1
1900.....	117.8	95.5	107.3	1900.....	114.3	92.3	107.2
1901.....	120.1	93.9	111.1	1901.....	121.4	92.4	109.4
1902.....	118.8	92.8	112.5	1902.....	125.0	88.5	119.2
1903.....	120.0	92.8	114.7	1903.....	132.1	88.3	121.3
1904.....	120.5	92.4	117.0	1904.....	132.8	87.9	119.5
1905.....	128.5	92.0	118.9	1905.....	162.0	87.9	121.2

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

PRINTING AND PUBLISHING, BOOK AND JOB—Concluded.

PROOF READERS, Female.				SEWERS, BOOK, Female.			
[Data for employees from 5 establishments 1890-1903. Data for hours and wages from 6 establishments 1890, 1891; 7, 1892-1894, 1902, 1903; 8, 1895-1901. Data from 15 establishments 1904; 36, 1905.]				[Data from 10 establishments 1890-1903; 28, 1904; 79, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	110.0	101.4	100.8	1890.....	111.9	100.7	91.2
1891.....	140.0	102.2	107.6	1891.....	92.9	100.4	99.2
1892.....	100.0	99.7	106.3	1892.....	100.0	100.7	99.3
1893.....	110.0	100.5	101.1	1893.....	78.6	100.3	102.5
1894.....	100.0	99.7	99.6	1894.....	85.7	100.2	101.0
1895.....	110.0	100.3	92.9	1895.....	90.5	100.0	100.3
1896.....	80.0	99.2	99.3	1896.....	100.0	99.8	104.0
1897.....	120.0	100.9	88.8	1897.....	102.4	99.9	101.1
1898.....	80.0	99.1	97.5	1898.....	114.3	99.1	102.0
1899.....	90.0	97.1	106.1	1899.....	121.4	98.9	99.5
1900.....	100.0	94.4	116.2	1900.....	119.0	96.8	102.5
1901.....	100.0	93.1	107.9	1901.....	150.0	96.8	95.9
1902.....	110.0	93.1	115.7	1902.....	128.2	95.4	102.0
1903.....	110.0	93.1	115.7	1903.....	150.0	95.2	98.5
1904.....	118.2	92.5	118.2	1904.....	160.4	94.3	100.9
1905.....	120.1	92.0	118.9	1905.....	164.7	94.0	104.2

STEREOTYPERS, Male.				STITCHERS, BOOK, Female.			
[Data from 4 establishments 1890-1903; 8, 1904; 10, 1905.]				[Data from 10 establishments 1890-1903; 21, 1904; 48, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	100.0	100.6	99.4	1890.....	95.7	100.4	97.2
1891.....	100.0	100.6	99.7	1891.....	93.6	100.4	98.3
1892.....	100.0	100.6	99.4	1892.....	110.6	100.4	91.3
1893.....	100.0	100.6	99.4	1893.....	97.9	100.4	100.8
1894.....	100.0	100.6	99.4	1894.....	91.5	100.4	98.5
1895.....	100.0	100.6	99.4	1895.....	93.6	100.4	98.8
1896.....	100.0	100.6	99.4	1896.....	93.6	100.4	101.8
1897.....	100.0	100.6	99.4	1897.....	100.0	100.4	97.2
1898.....	100.0	100.6	99.4	1898.....	112.8	98.8	105.6
1899.....	100.0	94.8	105.4	1899.....	106.4	98.0	110.3
1900.....	100.0	94.1	105.1	1900.....	144.7	93.3	124.3
1901.....	100.0	94.1	106.0	1901.....	151.1	92.3	131.9
1902.....	107.1	90.7	112.6	1902.....	168.1	92.2	134.0
1903.....	107.1	90.7	114.2	1903.....	163.8	91.6	137.8
1904.....	114.7	90.5	113.4	1904.....	150.3	91.6	137.2
1905.....	118.3	85.0	119.0	1905.....	171.5	91.3	134.8

PRINTING AND PUBLISHING, NEWSPAPER.

COMPOSITORS, Male.				COMPOSITORS, Female.			
[Data for employees from 91 establishments 1890-1903. Data for hours and wages from 91 establishments 1890; 92, 1891, 1892; 93, 1893; 94, 1894; 95, 1895-1903. Data from 135 establishments 1904; 148, 1905.]				[Data for employees from 4 establishments 1890-1903. Data for hours and wages from 7 establishments 1890, 1891, 1894, 1895; 8, 1892, 1893; 6, 1896-1898, 1901, 1903; 5, 1899, 1900, 1902. Data from 7 establishments 1904; 5, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	131.4	101.2	101.0	1890.....	132.4	98.1	110.1
1891.....	133.3	100.2	101.5	1891.....	129.4	99.9	97.5
1892.....	130.1	100.1	101.9	1892.....	150.0	99.8	104.7
1893.....	115.6	101.1	99.8	1893.....	132.4	101.2	95.3
1894.....	91.9	100.4	96.4	1894.....	111.8	100.7	93.4
1895.....	79.7	100.4	97.2	1895.....	76.5	101.4	89.6
1896.....	76.9	100.1	98.9	1896.....	82.4	102.2	91.5
1897.....	80.8	99.9	99.6	1897.....	73.5	102.4	93.7
1898.....	78.2	99.1	99.9	1898.....	58.8	99.0	108.4
1899.....	82.2	97.6	103.7	1899.....	44.1	95.4	119.0
1900.....	84.4	97.3	103.4	1900.....	38.2	94.6	118.6
1901.....	83.5	95.9	107.9	1901.....	44.1	95.4	111.5
1902.....	83.1	95.1	110.5	1902.....	44.1	95.1	118.4
1903.....	87.9	94.8	113.4	1903.....	41.2	90.9	128.4
1904.....	92.4	93.9	115.6	1904.....	32.0	91.7	121.5
1905.....	100.7	93.4	118.3	1905.....	37.3	95.1	129.2

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued:

PRINTING AND PUBLISHING, NEWSPAPER—Concluded.

LINOTYPE OPERATORS, Male.				PRESSMEN, Male.			
[Data for hours and wages from 1 establishment 1890; 5, 1891; 16, 1892; 32, 1893; 54, 1894; 69, 1895; 80, 1896; 88, 1897; 94, 1898; 99, 1899; 100, 1900; 102, 1901; 103, 1902; 104, 1903; 135, 1904; 147, 1905.]				[Data for employees from 106 establishments 1890-1903. Data for hours and wages from 106 establishments 1890; 107, 1891-1894; 108, 1895-1903. Data from 135 establishments 1904; 143, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	(e)	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	(e)	100.1	110.8	1890.....	86.6	101.1	97.9
1891.....	(e)	98.6	106.2	1891.....	88.5	101.0	97.7
1892.....	(e)	101.4	91.9	1892.....	92.5	100.9	97.6
1893.....	(e)	102.5	97.5	1893.....	94.7	101.0	98.3
1894.....	(e)	100.6	99.9	1894.....	95.5	100.5	98.9
1895.....	(e)	99.4	99.4	1895.....	95.3	100.1	99.5
1896.....	(e)	99.2	99.1	1896.....	105.9	99.6	101.5
1897.....	(e)	99.3	98.7	1897.....	107.3	98.8	101.8
1898.....	(e)	99.5	98.2	1898.....	114.5	98.7	102.9
1899.....	(e)	99.5	98.2	1899.....	119.0	98.2	104.2
1900.....	(e)	99.4	99.6	1900.....	123.2	97.8	104.9
1901.....	(e)	99.9	99.6	1901.....	127.9	97.5	106.1
1902.....	(e)	99.4	101.0	1902.....	133.8	97.3	109.1
1903.....	(e)	99.6	104.0	1903.....	138.5	97.1	112.6
1904.....	(e)	99.4	105.9	1904.....	148.4	96.3	114.5
1905.....	(e)	99.2	106.5	1905.....	152.7	97.0	116.4

STEREOTYPERS, Male.

[Data for employees from 76 establishments 1890-1903. Data for hours and wages from 76 establishments 1890; 77, 1891-1893; 78, 1894, 1895; 79, 1896-1903. Data from 109 establishments 1904; 133, 1905.]

Average 1890-99..	100.0	100.0	100.0	1898.....	111.6	99.0	104.6
1890.....	84.4	100.3	95.3	1899.....	115.0	98.6	105.5
1891.....	84.7	100.6	95.3	1900.....	115.0	98.7	104.9
1892.....	90.7	100.7	98.1	1901.....	119.3	98.4	106.5
1893.....	97.0	100.5	99.3	1902.....	122.6	98.5	107.3
1894.....	97.3	100.5	98.6	1903.....	122.9	98.5	108.4
1895.....	99.7	100.5	99.0	1904.....	129.0	97.2	111.5
1896.....	109.6	100.0	101.8	1905.....	133.4	96.5	114.3
1897.....	109.6	99.4	102.3				

SHIPBUILDING.

BLACKSMITHS, Male.				BOILER MAKERS, Male.			
[Data for employees from 11 establishments 1890-1903. Data for hours and wages from 11 establishments 1890; 12, 1891-1895; 13, 1896-1898; 14, 1899-1903. Data from 17 establishments 1904; 27, 1905.]				[Data for employees from 5 establishments 1890-1903. Data for hours and wages from 6 establishments 1890, 1894, 1895; 7, 1891-1893, 1896-1898; 8, 1899-1903. Data from 12 establishments 1904; 20, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	65.5	100.5	97.0	1890.....	55.3	99.9	98.2
1891.....	74.8	100.5	100.2	1891.....	44.7	100.1	98.6
1892.....	84.0	100.5	99.7	1892.....	62.4	100.2	100.4
1893.....	81.5	99.9	99.3	1893.....	90.1	100.3	99.2
1894.....	99.2	100.0	96.8	1894.....	95.7	100.2	95.3
1895.....	137.8	100.2	97.8	1895.....	107.1	100.0	100.0
1896.....	96.6	99.4	104.7	1896.....	90.1	99.7	104.4
1897.....	100.8	99.5	104.0	1897.....	87.9	99.7	101.8
1898.....	140.3	99.9	99.4	1898.....	209.9	100.1	100.5
1899.....	121.8	99.6	101.0	1899.....	153.9	99.9	101.5
1900.....	116.8	99.7	101.1	1900.....	207.1	100.0	99.6
1901.....	122.7	99.6	100.6	1901.....	175.9	99.8	101.5
1902.....	142.0	99.2	103.8	1902.....	185.8	99.7	102.6
1903.....	131.1	98.9	105.6	1903.....	172.3	99.3	101.8
1904.....	110.1	96.5	109.4	1904.....	175.3	98.2	105.0
1905.....	99.7	96.2	109.4	1905.....	172.7	98.3	103.9

* No relative numbers shown, as reports were secured from but one establishment employing linotype operators as early as 1890.

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

SHIPBUILDING—Continued.

CALKERS, IRON, Male.				CALKERS, WOOD, Male.			
[Data for employees from 4 establishments 1890-1903. Data for hours and wages from 4 establishments 1890, 1895; 5, 1891-1894, 1896-1898; 6, 1899-1902; 7, 1903. Data from 7 establishments 1904; 15, 1905.]				[Data from 9 establishments 1890-1903; 15, 1904; 23, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	85.3	100.5	92.3	1890.....	92.3	100.4	99.4
1891.....	179.4	101.3	84.7	1891.....	92.3	100.6	99.2
1892.....	76.5	100.3	93.7	1892.....	89.5	100.2	98.8
1893.....	55.9	99.3	103.0	1893.....	111.2	100.0	99.3
1894.....	82.9	98.7	100.3	1894.....	83.2	99.9	98.4
1895.....	50.0	98.8	103.5	1895.....	92.3	99.6	98.3
1896.....	117.6	100.6	107.0	1896.....	91.6	100.0	98.5
1897.....	100.0	99.6	103.1	1897.....	101.4	99.7	100.3
1898.....	126.5	100.6	109.0	1898.....	125.2	99.7	103.8
1899.....	152.9	100.3	102.9	1899.....	121.7	99.9	104.0
1900.....	120.6	99.9	108.1	1900.....	123.1	99.7	105.6
1901.....	182.4	96.1	109.4	1901.....	155.2	99.8	110.1
1902.....	200.0	94.3	124.2	1902.....	155.9	99.6	108.4
1903.....	155.9	97.7	147.8	1903.....	165.0	93.7	109.6
1904.....	164.0	93.4	148.1	1904.....	146.7	92.9	115.5
1905.....	141.4	95.3	145.2	1905.....	135.4	92.4	115.7

CARPENTERS, Male.				DRILLERS, Male.			
[Data for employees from 18 establishments 1890-1903. Data for hours and wages from 19 establishments 1890-1892, 1894, 1895; 20, 1893, 1896-1898; 21, 1899-1903. Data from 24 establishments 1904; 36, 1905.]				[Data for employees from 2 establishments 1890-1903. Data for hours and wages from 2 establishments 1890, 1895; 3, 1891, 1892, 1894, 1896-1898; 4, 1893, 1899-1903. Data from 9 establishments 1904; 18, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	83.4	101.1	98.6	1890.....	113.3	100.9	96.6
1891.....	93.9	100.4	99.8	1891.....	66.7	99.3	92.3
1892.....	85.4	99.9	98.9	1892.....	100.0	99.0	94.8
1893.....	84.2	99.8	99.8	1893.....	86.7	99.0	95.0
1894.....	82.7	99.7	100.6	1894.....	53.3	98.0	85.6
1895.....	99.7	99.8	100.3	1895.....	66.7	100.9	93.2
1896.....	97.6	100.1	99.0	1896.....	80.0	100.9	105.7
1897.....	106.2	99.8	100.5	1897.....	153.3	100.9	107.1
1898.....	119.1	99.5	100.5	1898.....	93.3	100.9	114.7
1899.....	147.3	100.0	102.1	1899.....	100.0	99.9	114.7
1900.....	144.2	99.8	104.4	1900.....	133.3	98.6	110.6
1901.....	145.3	98.5	105.9	1901.....	140.0	95.1	110.8
1902.....	140.0	97.8	109.4	1902.....	146.7	94.5	125.6
1903.....	153.4	96.9	110.1	1903.....	173.3	91.9	122.1
1904.....	151.2	96.2	110.6	1904.....	146.9	91.7	125.3
1905.....	161.3	96.8	112.3	1905.....	243.0	91.7	125.8

FITTERS, Male.				JOINERS, Male.			
[Data for employees from 6 establishments 1890-1903. Data for hours and wages from 6 establishments 1890; 7, 1891-1895; 8, 1896, 1897; 9, 1898; 10, 1899-1903. Data from 11 establishments 1904; 20, 1905.]				[Data for employees from 11 establishments 1890-1903. Data for hours and wages from 12 establishments 1890-1892, 1894, 1895; 13, 1893, 1896-1898; 14, 1899-1903. Data from 16 establishments 1904; 25, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	60.5	99.0	96.7	1890.....	87.9	101.1	96.3
1891.....	95.3	100.2	92.8	1891.....	68.6	99.4	99.5
1892.....	90.7	100.1	98.3	1892.....	96.5	99.9	99.2
1893.....	89.1	99.8	99.3	1893.....	91.6	99.7	100.9
1894.....	141.9	100.2	92.4	1894.....	97.1	100.3	99.1
1895.....	107.0	100.7	99.4	1895.....	210.7	101.9	95.9
1896.....	103.9	100.6	102.1	1896.....	95.1	99.9	100.8
1897.....	87.6	99.9	105.5	1897.....	46.7	97.4	106.8
1898.....	86.8	99.9	109.4	1898.....	93.4	100.4	103.3
1899.....	133.3	99.6	104.2	1899.....	111.0	100.1	98.3
1900.....	217.8	100.4	100.4	1900.....	147.8	101.1	101.2
1901.....	191.5	98.6	103.5	1901.....	144.4	100.3	101.4
1902.....	165.1	99.6	105.7	1902.....	149.9	100.0	102.7
1903.....	162.0	99.5	107.0	1903.....	135.4	98.8	106.2
1904.....	145.2	98.7	105.7	1904.....	139.5	97.6	108.2
1905.....	156.5	99.0	103.7	1905.....	155.2	98.1	109.6

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

SHIPBUILDING—Continued.

LABORERS, Male.				MACHINISTS, Male.			
[Data for employees from 3 establishments 1890-1903. Data for hours and wages from 3 establishments 1890-1894; 4, 1895-1903. Data from 17 establishments 1904; 33, 1905.]				[Data for employees from 8 establishments 1890-1903. Data for hours and wages from 8 establishments 1890; 9, 1891-1898; 10, 1899-1903. Data from 15 establishments 1904; 24, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	205.6	101.5	84.7	1890.....	66.6	100.1	95.8
1891.....	72.2	98.1	103.8	1891.....	67.0	100.1	97.7
1892.....	84.7	99.1	97.3	1892.....	97.6	100.3	97.9
1893.....	69.4	98.1	102.0	1893.....	90.7	100.3	97.5
1894.....	73.6	98.4	103.8	1894.....	89.7	100.2	96.2
1895.....	70.8	99.9	106.1	1895.....	104.0	100.0	100.1
1896.....	63.9	101.3	101.5	1896.....	104.2	99.8	103.4
1897.....	79.2	101.4	100.4	1897.....	104.4	99.6	103.4
1898.....	104.2	100.7	100.4	1898.....	109.9	99.5	104.3
1899.....	169.4	101.4	100.1	1899.....	165.8	100.0	102.5
1900.....	287.5	101.2	99.8	1900.....	135.6	99.9	105.8
1901.....	248.6	101.6	100.5	1901.....	193.8	99.6	105.1
1902.....	234.7	98.9	108.3	1902.....	230.2	98.8	108.2
1903.....	194.4	98.9	110.6	1903.....	200.2	98.3	110.1
1904.....	236.3	98.5	109.8	1904.....	229.4	96.4	112.2
1905.....	265.6	98.0	112.6	1905.....	220.7	96.4	113.4

MOLDERS, IRON, Male.				PAINTERS, Male.			
[Data for employees from 3 establishments 1890-1903. Data for hours and wages from 3 establishments 1890; 4, 1891-1898; 5, 1899-1901; 6, 1902-1903. Data from 9 establishments 1904; 10, 1905.]				[Data for employees from 9 establishments 1890-1903. Data for hours and wages from 9 establishments 1890; 11, 1891-1894, 1899-1903; 10, 1895-1898. Data from 14 establishments 1904; 20, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	96.2	100.2	105.4	1890.....	78.4	103.1	95.1
1891.....	98.1	101.0	95.2	1891.....	78.4	102.4	93.8
1892.....	98.1	100.6	97.0	1892.....	85.1	102.4	95.0
1893.....	84.6	100.5	98.8	1893.....	112.5	102.8	99.3
1894.....	73.1	99.7	95.9	1894.....	102.4	102.7	98.3
1895.....	94.2	99.8	99.6	1895.....	154.8	99.9	105.6
1896.....	111.5	99.8	97.2	1896.....	97.1	97.6	105.7
1897.....	98.1	99.3	103.3	1897.....	83.7	94.8	105.6
1898.....	115.4	99.8	102.3	1898.....	101.0	96.7	102.7
1899.....	123.1	99.6	105.0	1899.....	108.7	97.6	99.0
1900.....	109.6	99.7	107.5	1900.....	122.2	98.9	101.5
1901.....	117.3	99.6	110.2	1901.....	130.8	98.4	101.5
1902.....	126.9	98.2	112.5	1902.....	134.1	97.0	103.3
1903.....	121.2	98.1	115.6	1903.....	131.7	97.8	102.6
1904.....	102.1	96.6	122.0	1904.....	142.5	95.8	108.9
1905.....	102.7	98.0	119.1	1905.....	153.6	96.1	105.7

PATTERN MAKERS, Male.				RIGGERS, Male.			
[Data for employees from 8 establishments 1890-1903. Data for hours and wages from 8 establishments 1890; 9, 1891-1898; 10, 1899-1903. Data from 13 establishments 1904; 21, 1905.]				[Data for employees from 6 establishments 1890-1903. Data for hours and wages from 6 establishments 1890; 8, 1891-1898; 9, 1899-1903. Data from 14 establishments 1904; 20, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	60.5	99.9	102.9	1890.....	79.0	99.7	112.1
1891.....	81.6	100.2	97.8	1891.....	70.0	98.1	106.0
1892.....	82.9	100.2	97.7	1892.....	100.0	98.9	101.4
1893.....	84.2	100.2	97.9	1893.....	119.0	100.3	95.0
1894.....	101.3	100.2	95.3	1894.....	115.0	100.7	96.9
1895.....	114.5	100.0	100.6	1895.....	110.0	100.8	92.9
1896.....	127.6	100.1	99.8	1896.....	71.0	100.4	102.1
1897.....	100.0	99.5	102.7	1897.....	94.0	99.6	108.3
1898.....	110.5	99.8	100.8	1898.....	94.0	100.1	104.2
1899.....	135.5	99.7	104.4	1899.....	184.0	101.4	91.0
1900.....	130.2	99.9	107.0	1900.....	244.0	102.0	89.2
1901.....	125.0	99.1	109.6	1901.....	98.0	99.9	99.5
1902.....	142.1	98.4	112.1	1902.....	242.0	102.0	94.0
1903.....	143.4	97.3	114.3	1903.....	228.0	101.9	96.3
1904.....	163.7	96.4	117.9	1904.....	183.5	99.9	102.6
1905.....	156.9	96.8	117.0	1905.....	226.2	109.7	102.2

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

SHIPBUILDING—Concluded.

RIVETERS, Male.				SAWYERS, CIRCULAR, Male.			
[Data for employees from 3 establishments 1890-1903. Data for hours and wages from 4 establishments 1890, 1894, 1895; 5, 1891-1893, 1896-1898; 6, 1899-1903. Data from 9 establishments 1904; 17, 1905.]				[Data from 5 establishments 1890-1903; 10, 1904; 14, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	58.0	101.1	81.9	1890.....	77.8	103.8	93.6
1891.....	137.7	100.6	84.3	1891.....	100.0	103.7	96.7
1892.....	155.1	100.5	92.5	1892.....	88.9	103.1	96.0
1893.....	15.9	98.4	94.2	1893.....	100.0	103.7	96.7
1894.....	14.5	98.5	85.2	1894.....	100.0	97.6	103.1
1895.....	11.6	99.9	128.1	1895.....	100.0	97.6	103.1
1896.....	23.2	100.1	107.2	1896.....	88.9	97.6	101.7
1897.....	27.5	99.9	118.1	1897.....	100.0	97.6	103.1
1898.....	247.8	100.7	103.8	1898.....	100.0	97.6	103.1
1899.....	301.4	100.2	104.7	1899.....	100.0	97.6	103.1
1900.....	211.6	100.2	103.7	1900.....	88.9	97.6	101.7
1901.....	331.9	99.7	94.3	1901.....	100.0	93.6	108.1
1902.....	281.2	98.9	107.2	1902.....	100.0	93.6	110.6
1903.....	315.9	99.0	107.1	1903.....	111.1	93.3	107.1
1904.....	389.6	96.6	106.2	1904.....	96.3	92.9	106.5
1905.....	349.8	98.3	104.9	1905.....	92.7	93.2	106.6

SPAR MAKERS, Male.

[Data from 3 establishments.]

Average 1890-99..	100.0	100.0	100.0	1898.....	100.0	99.4	101.6
1890.....	108.7	100.7	109.4	1899.....	100.0	99.9	100.9
1891.....	104.3	98.8	109.2	1900.....	104.3	100.1	97.3
1892.....	104.3	99.6	106.1	1901.....	108.7	99.8	100.2
1893.....	113.0	100.0	101.5	1902.....	104.3	99.6	100.3
1894.....	87.0	100.7	92.6	1903.....	91.3	94.4	97.4
1895.....	91.3	100.4	92.3	1904.....	78.3	94.4	100.2
1896.....	91.3	100.4	93.0	1905.....	86.1	93.2	101.8
1897.....	87.0	100.2	93.4				

SILK GOODS.

BEANERS, Male.				DOUBLERS, Female.			
[Data for employees from 2 establishments 1890-1903. Data for hours and wages from 2 establishments 1890-1896; 3, 1897-1903. Data from 3 establishments 1904; 6, 1905.]				[Data from 6 establishments 1890-1904; 10, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	100.0	104.0	104.5	1890.....	77.1	102.8	107.0
1891.....	100.0	104.0	99.8	1891.....	78.3	102.8	98.6
1892.....	75.0	104.0	102.1	1892.....	98.8	102.2	99.6
1893.....	75.0	98.2	102.1	1893.....	114.5	98.7	98.4
1894.....	75.0	98.2	102.1	1894.....	108.4	98.3	101.8
1895.....	100.0	97.5	99.8	1895.....	92.8	98.7	102.5
1896.....	75.0	98.2	102.1	1896.....	101.2	98.7	102.0
1897.....	100.0	98.5	93.0	1897.....	106.0	99.3	95.5
1898.....	75.0	99.9	88.0	1898.....	112.0	99.1	97.9
1899.....	225.0	97.4	106.6	1899.....	107.2	99.4	96.2
1900.....	75.0	99.9	93.2	1900.....	100.0	99.3	97.0
1901.....	150.0	98.2	100.6	1901.....	100.0	98.9	106.9
1902.....	100.0	99.1	103.2	1902.....	89.2	99.0	114.3
1903.....	125.0	98.6	101.3	1903.....	90.4	98.0	123.4
1904.....	107.1	98.3	104.5	1904.....	88.0	97.5	130.2
1905.....	140.6	98.5	99.5	1905.....	107.7	97.7	126.2

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

SILK GOODS—Continued.

DYKERS, Male.				LOOM FIXERS, Male.			
[Data from 4 establishments 1890-1904; 6, 1905.]				[Data from 5 establishments 1890-1903; 6, 1904; 12, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99.	100.0	100.0	100.0	Average 1890-99.	100.0	100.0	100.0
1890.	73.1	103.1	97.2	1890.	69.6	104.4	94.7
1891.	92.3	103.1	96.1	1891.	73.9	104.5	93.8
1892.	101.9	103.1	95.1	1892.	87.0	101.6	96.4
1893.	87.5	103.1	92.6	1893.	82.6	98.6	99.0
1894.	85.6	98.7	100.9	1894.	95.7	98.4	97.7
1895.	97.1	98.2	102.0	1895.	117.4	98.2	103.7
1896.	98.1	97.9	103.1	1896.	108.7	98.6	101.0
1897.	131.7	96.9	106.6	1897.	126.1	98.4	104.2
1898.	119.2	97.9	102.3	1898.	130.4	98.4	105.1
1899.	117.3	97.8	104.0	1899.	126.1	98.7	104.3
1900.	109.6	98.1	103.8	1900.	152.2	98.5	106.2
1901.	137.5	97.4	105.2	1901.	143.5	98.6	105.3
1902.	384.6	94.8	102.2	1902.	143.5	98.6	103.0
1903.	351.9	94.8	103.1	1903.	139.1	98.6	103.3
1904.	461.6	94.8	103.4	1904.	128.9	98.2	104.0
1905.	487.0	94.8	104.1	1905.	128.9	98.3	104.4

PICKERS, Male.				PICKERS, Female.			
[Data from 1 establishment 1890-1903; 2, 1904; 3, 1905.]				[Data from 3 establishments 1890-1903; 5, 1904; 11, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99.	100.0	100.0	100.0	Average 1890-99.	100.0	100.0	100.0
1890.	66.7	100.0	109.7	1890.	48.4	100.0	84.9
1891.	133.3	100.0	111.7	1891.	61.3	100.0	108.6
1892.	100.0	100.0	98.0	1892.	71.0	100.0	119.8
1893.	100.0	100.0	84.2	1893.	67.7	100.0	108.2
1894.	100.0	100.0	96.8	1894.	83.9	100.0	97.9
1895.	100.0	100.0	104.2	1895.	103.2	100.0	100.9
1896.	100.0	100.0	82.3	1896.	106.5	100.0	80.2
1897.	100.0	100.0	94.2	1897.	135.5	100.0	93.2
1898.	133.3	100.0	110.6	1898.	145.2	100.0	101.5
1899.	133.3	100.0	107.7	1899.	167.7	100.0	104.8
1900.	133.3	100.0	111.4	1900.	154.8	100.0	107.2
1901.	133.3	100.0	107.3	1901.	177.4	100.0	107.1
1902.	133.3	100.0	111.5	1902.	190.3	100.0	103.9
1903.	133.3	100.0	119.4	1903.	161.3	100.0	123.2
1904.	68.7	101.0	117.4	1904.	137.3	100.5	121.9
1905.	85.9	100.3	112.8	1905.	142.4	101.7	120.6

QUILLERS, Female.				SPINNERS, Male.			
[Data for employees from 6 establishments 1890-1903. Data for hours and wages from 6 establishments 1890-1896; 7, 1897-1903. Data from 8 establishments 1904; 14, 1905.]				[Data from 4 establishments 1890-1904; 6, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99.	100.0	100.0	100.0	Average 1890-99.	100.0	100.0	100.0
1890.	81.3	104.0	103.1	1890.	52.9	102.7	103.2
1891.	71.4	103.4	99.5	1891.	70.6	102.7	93.9
1892.	83.5	101.9	94.8	1892.	92.9	100.1	99.9
1893.	86.8	98.4	104.7	1893.	122.4	99.2	98.5
1894.	87.9	98.1	96.3	1894.	89.4	99.5	95.9
1895.	141.8	97.9	97.4	1895.	112.9	98.9	99.7
1896.	85.7	98.5	109.8	1896.	94.1	99.1	103.4
1897.	111.0	99.3	99.2	1897.	105.9	99.0	104.4
1898.	118.7	99.0	99.2	1898.	129.4	99.3	99.7
1899.	127.5	99.4	95.6	1899.	123.5	99.6	101.5
1900.	115.4	99.8	95.9	1900.	151.8	99.8	97.2
1901.	133.0	99.4	96.4	1901.	143.5	99.9	103.3
1902.	127.5	99.3	97.6	1902.	183.5	99.8	103.3
1903.	126.4	98.7	107.9	1903.	185.3	99.8	106.3
1904.	163.7	98.9	107.7	1904.	190.1	97.7	109.5
1905.	125.1	98.8	107.1	1905.	212.6	98.2	113.4

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

SILK GOODS—Continued.

TWISTERS-IN, Male.				WARPERS, Male.			
[Data from 2 establishments 1890-1903; 4, 1904; 8, 1905.]				[Data from 3 establishments 1890-1904; 5, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	66.7	106.2	98.2	1890.....	86.1	105.3	93.1
1891.....	50.0	106.2	100.2	1891.....	91.7	105.4	90.6
1892.....	83.3	103.2	100.5	1892.....	97.2	102.9	97.9
1893.....	91.7	97.3	97.7	1893.....	75.0	98.1	100.4
1894.....	79.2	97.3	104.2	1894.....	116.7	98.1	93.8
1895.....	50.0	97.3	104.8	1895.....	133.3	98.1	110.1
1896.....	225.0	97.3	98.9	1896.....	88.9	98.1	96.8
1897.....	158.3	97.3	102.3	1897.....	122.2	98.1	110.5
1898.....	83.3	97.3	95.2	1898.....	111.1	98.1	105.0
1899.....	100.0	97.3	98.0	1899.....	77.8	98.1	101.7
1900.....	83.3	97.3	102.6	1900.....	83.3	98.1	111.6
1901.....	145.8	97.3	87.4	1901.....	102.8	98.1	116.3
1902.....	145.8	97.3	100.2	1902.....	122.2	98.1	122.5
1903.....	87.5	97.3	103.4	1903.....	113.9	98.1	112.4
1904.....	76.3	97.3	100.3	1904.....	75.0	98.1	124.3
1905.....	83.4	97.2	101.9	1905.....	61.4	90.5	135.0

WARPERS, Female.				WEAVERS, Male.			
[Data for employees from 5 establishments 1890-1903. Data for hours and wages from 5 establishments 1890-1896; 6, 1897-1903. Data from 6 establishments 1904; 12, 1905.]				[Data for employees from 3 establishments 1890-1903. Data for hours and wages from 3 establishments 1890; 4, 1891-1896; 5, 1897-1903. Data from 6 establishments 1904; 9, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	90.2	103.1	96.1	1890.....	139.6	102.9	95.6
1891.....	100.9	103.1	88.6	1891.....	81.1	103.7	98.0
1892.....	101.8	103.1	97.6	1892.....	97.6	101.1	102.6
1893.....	83.0	98.4	103.8	1893.....	84.9	98.2	105.8
1894.....	86.6	97.8	104.3	1894.....	92.9	98.2	101.2
1895.....	100.0	98.6	105.6	1895.....	102.8	98.3	97.3
1896.....	101.8	98.4	111.0	1896.....	77.4	98.1	111.2
1897.....	113.4	98.6	105.7	1897.....	100.9	99.3	97.9
1898.....	118.8	99.3	90.8	1898.....	110.4	100.1	95.5
1899.....	102.7	99.3	96.5	1899.....	110.8	100.2	94.6
1900.....	105.4	100.1	90.0	1900.....	87.3	100.2	98.9
1901.....	105.4	100.2	88.3	1901.....	83.5	100.6	90.8
1902.....	114.3	99.9	94.4	1902.....	76.4	100.9	97.4
1903.....	117.0	100.0	90.9	1903.....	61.3	100.3	94.3
1904.....	113.2	99.4	97.4	1904.....	46.8	100.1	101.4
1905.....	124.9	99.4	96.0	1905.....	51.5	100.2	104.1

WEAVERS, Female.				WEAVERS, RIBBON, Male.			
[Data for employees from 6 establishments 1890-1903. Data for hours and wages from 6 establishments 1890-1896; 7, 1897-1903. Data from 7 establishments 1904; 12, 1905.]				[Data from 2 establishments 1890-1904; 4, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	76.9	100.8	95.6	1890.....	104.2	105.0	116.5
1891.....	60.6	102.0	89.9	1891.....	80.5	104.0	98.4
1892.....	79.4	100.6	100.6	1892.....	95.8	105.3	98.7
1893.....	79.2	98.7	105.2	1893.....	89.8	98.0	107.1
1894.....	92.1	99.0	111.0	1894.....	129.7	98.0	90.2
1895.....	102.7	98.7	101.0	1895.....	122.0	98.0	100.1
1896.....	96.2	100.2	113.3	1896.....	78.8	98.0	102.1
1897.....	118.1	100.1	96.1	1897.....	100.0	98.0	88.7
1898.....	153.8	99.9	94.5	1898.....	129.7	98.0	99.1
1899.....	141.2	100.0	92.8	1899.....	67.8	98.0	99.0
1900.....	139.8	100.1	96.1	1900.....	98.3	98.0	93.0
1901.....	170.1	99.2	94.0	1901.....	56.8	98.0	83.4
1902.....	187.1	99.4	100.5	1902.....	49.2	98.0	82.8
1903.....	190.3	99.7	99.0	1903.....	82.2	98.0	86.8
1904.....	178.3	99.4	92.8	1904.....	92.4	94.4	86.9
1905.....	192.8	99.4	94.4	1905.....	114.9	94.8	86.3

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

SILK GOODS—Concluded.

WEAVERS, RIBBON, Female.				WINDERS, Female.			
[Data for employees from 1 establishment 1890-1903. Data for hours and wages from 1 establishment 1890-1899; 2, 1900-1903. Data from 2 establishments 1904; 4, 1905.]				[Data from 9 establishments 1890-1904; 14, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99.	100.0	100.0	100.0	Average 1890-99.	100.0	100.0	100.0
1890.	135.6	100.0	99.3	1890.	95.3	103.0	95.9
1891.	101.7	100.0	102.0	1891.	82.8	103.1	84.3
1892.	101.7	100.0	100.2	1892.	96.9	102.2	92.8
1893.	76.3	100.0	101.4	1893.	102.7	98.4	98.4
1894.	76.3	100.0	100.2	1894.	93.0	98.7	106.8
1895.	93.2	100.0	95.6	1895.	105.9	98.7	106.2
1896.	118.6	100.0	99.7	1896.	95.7	99.0	103.2
1897.	84.7	100.0	97.7	1897.	103.1	99.0	101.4
1898.	93.2	100.0	104.0	1898.	114.5	98.8	107.4
1899.	110.2	100.0	100.0	1899.	108.6	99.1	103.3
1900.	118.6	100.0	95.2	1900.	107.8	99.3	105.3
1901.	67.8	100.0	95.4	1901.	109.4	99.1	109.1
1902.	161.0	100.0	84.6	1902.	110.5	99.2	111.2
1903.	122.0	100.0	89.7	1903.	113.3	99.3	115.3
1904.	112.9	92.2	83.3	1904.	110.2	98.9	115.2
1905.	154.3	92.6	89.2	1905.	117.6	99.1	116.7

SLAUGHTERING AND MEAT PACKING.

BACK SKINNERS, CATTLE, Male.				DRY SALTERS, Male.			
[Data from 4 establishments 1890-1903; 8, 1904; 12, 1905.]				[Data from 6 establishments 1890-1903; 13, 1904; 14, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99.	100.0	100.0	100.0	Average 1890-99.	100.0	100.0	100.0
1890.	80.0	98.0	102.9	1890.	65.3	100.0	105.4
1891.	80.0	98.0	102.9	1891.	66.3	100.0	104.5
1892.	80.0	98.0	104.7	1892.	68.6	100.0	105.1
1893.	100.0	101.5	104.3	1893.	73.8	100.0	104.2
1894.	100.0	101.5	96.1	1894.	90.7	100.0	97.2
1895.	106.7	100.6	96.1	1895.	108.1	100.0	95.2
1896.	106.7	100.6	96.1	1896.	119.8	100.0	95.1
1897.	106.7	100.6	96.1	1897.	140.1	100.0	93.9
1898.	106.7	100.6	97.8	1898.	147.1	100.0	97.7
1899.	106.7	100.6	102.9	1899.	116.9	100.0	101.9
1900.	106.7	100.6	109.8	1900.	129.1	100.0	99.1
1901.	106.7	100.6	109.8	1901.	125.6	100.0	100.5
1902.	120.0	97.2	114.8	1902.	129.7	100.0	106.1
1903.	120.0	97.2	125.4	1903.	144.8	100.0	111.5
1904.	129.6	97.2	129.0	1904.	131.7	99.5	112.8
1905.	102.1	96.4	130.1	1905.	160.3	99.5	109.4

GUTTERS, CATTLE, Male.				GUTTERS, HOG, Male.			
[Data from 5 establishments 1890-1903; 9, 1904; 12, 1905.]				[Data from 5 establishments 1890-1903; 12, 1904; 14, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99.	100.0	100.0	100.0	Average 1890-99.	100.0	100.0	100.0
1890.	81.3	98.4	102.8	1890.	100.0	99.9	100.1
1891.	81.3	98.4	102.8	1891.	100.0	99.9	100.1
1892.	81.3	98.4	105.4	1892.	100.0	99.9	100.1
1893.	100.0	101.4	105.1	1893.	100.0	99.9	100.1
1894.	100.0	101.4	93.6	1894.	100.0	99.9	100.1
1895.	106.3	100.4	97.6	1895.	100.0	99.9	100.1
1896.	106.3	100.4	97.6	1896.	100.0	99.9	100.1
1897.	106.3	100.4	97.6	1897.	100.0	99.9	100.1
1898.	106.3	100.4	98.9	1898.	107.7	100.4	98.6
1899.	106.3	100.4	98.9	1899.	107.7	100.4	100.3
1900.	106.3	100.4	104.3	1900.	107.7	100.4	99.4
1901.	106.3	100.4	107.0	1901.	115.4	100.8	98.1
1902.	125.0	98.0	112.3	1902.	115.4	100.2	98.1
1903.	118.8	97.2	119.9	1903.	115.4	100.2	99.3
1904.	114.4	97.2	122.2	1904.	140.1	100.4	84.3
1905.	99.2	97.6	123.4	1905.	136.2	98.8	79.6

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

SLAUGHTERING AND MEAT PACKING—Continued.

HEADERS, CATTLE, Male.				HEADERS, HOG, Male.			
[Data from 5 establishments 1890-1903; 9, 1904; 11, 1905.]				[Data from 6 establishments 1890-1903; 13, 1904; 15, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	105.9	101.4	97.8	1890.....	114.3	97.0	97.0
1891.....	105.9	101.4	97.8	1891.....	114.3	97.0	97.0
1892.....	105.9	101.4	97.8	1892.....	114.3	97.0	97.0
1893.....	100.0	100.7	102.0	1893.....	114.3	97.0	107.6
1894.....	100.0	100.7	97.9	1894.....	114.3	97.0	107.6
1895.....	100.0	99.1	101.0	1895.....	85.7	103.0	99.4
1896.....	100.0	99.1	98.5	1896.....	85.7	103.0	99.4
1897.....	100.0	99.1	101.6	1897.....	85.7	103.0	99.4
1898.....	94.1	98.2	105.7	1898.....	85.7	103.0	99.4
1899.....	100.0	99.1	99.8	1899.....	85.7	103.0	96.2
1900.....	100.0	99.1	107.8	1900.....	85.7	103.0	99.4
1901.....	94.1	98.2	107.3	1901.....	85.7	103.0	99.4
1902.....	111.8	95.9	113.8	1902.....	85.7	101.4	97.8
1903.....	111.8	95.9	121.1	1903.....	85.7	101.4	106.6
1904.....	111.8	95.9	126.6	1904.....	85.7	101.4	107.3
1905.....	98.2	96.2	130.3	1905.....	85.7	101.4	106.7

LABORERS, Male.				PICKLERS, Male.			
[Data from 4 establishments 1890-1903; 13, 1904; 15, 1905.]				[Data from 7 establishments 1890-1903; 12, 1904; 14, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	85.1	100.0	105.1	1890.....	60.8	100.0	104.0
1891.....	87.3	100.0	105.0	1891.....	60.0	100.0	103.3
1892.....	90.7	100.0	105.1	1892.....	70.7	100.0	103.4
1893.....	88.9	100.0	105.6	1893.....	74.6	100.0	103.4
1894.....	99.7	100.0	95.4	1894.....	88.7	100.0	96.2
1895.....	101.3	100.0	94.9	1895.....	104.8	100.0	95.1
1896.....	101.3	100.0	94.5	1896.....	115.5	100.0	95.5
1897.....	108.3	100.0	94.9	1897.....	130.1	100.0	96.8
1898.....	111.6	100.0	98.0	1898.....	147.0	100.0	99.8
1899.....	125.7	100.0	101.5	1899.....	132.4	100.0	102.2
1900.....	130.4	100.0	98.0	1900.....	136.6	100.0	100.5
1901.....	137.4	100.0	97.2	1901.....	150.7	100.0	100.8
1902.....	144.3	100.0	101.5	1902.....	153.8	100.0	107.9
1903.....	143.0	100.0	107.8	1903.....	159.4	100.0	114.0
1904.....	131.2	100.0	108.9	1904.....	148.9	100.0	114.7
1905.....	132.1	100.0	104.7	1905.....	134.2	100.0	109.4

HUMP SKINNERS, CATTLE, Male.				SCRAPERS, HOG, Male.			
[Data from 2 establishments 1890-1903; 6, 1904; 10, 1905.]				[Data from 5 establishments 1890-1903; 12, 1904; 13, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	66.7	100.0	102.9	1890.....	100.0	100.4	104.4
1891.....	66.7	100.0	102.9	1891.....	100.0	100.4	104.4
1892.....	66.7	100.0	102.9	1892.....	100.0	100.4	104.4
1893.....	100.0	100.0	100.3	1893.....	100.0	100.4	104.4
1894.....	100.0	100.0	95.0	1894.....	100.0	100.4	104.9
1895.....	100.0	100.0	95.0	1895.....	100.0	100.4	104.9
1896.....	100.0	100.0	95.0	1896.....	100.0	100.4	104.9
1897.....	100.0	100.0	95.0	1897.....	100.0	100.4	104.9
1898.....	100.0	100.0	100.3	1898.....	100.0	100.4	99.9
1899.....	116.7	100.0	110.8	1899.....	84.2	96.0	81.9
1900.....	116.7	100.0	110.8	1900.....	57.9	100.8	107.8
1901.....	116.7	100.0	110.8	1901.....	57.9	100.8	96.6
1902.....	116.7	100.0	118.7	1902.....	57.9	99.9	96.6
1903.....	100.0	100.0	129.3	1903.....	57.9	99.9	95.8
1904.....	111.8	100.0	136.0	1904.....	60.0	100.0	96.0
1905.....	97.2	100.1	132.3	1905.....	62.0	96.2	95.4

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

SLAUGHTERING AND MEAT PACKING—Concluded.

SIDE SKINNERS, CATTLE, Male.				SPLITTERS, CATTLE, Male.			
[Data from 4 establishments 1890-1903; 8, 1904; 12, 1905.]				[Data from 4 establishments 1890-1903; 9, 1904; 13, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99.	100.0	100.0	100.0	Average 1890-99.	100.0	100.0	100.0
1890.	87.8	98.3	104.3	1890.	91.3	98.7	104.6
1891.	87.8	98.3	104.3	1891.	91.3	98.7	104.6
1892.	87.8	98.3	106.9	1892.	91.3	98.7	106.9
1893.	102.4	101.0	106.9	1893.	100.0	100.4	106.9
1894.	102.4	101.0	95.1	1894.	100.0	100.4	95.0
1895.	104.9	100.7	95.1	1895.	108.7	100.6	95.0
1896.	104.9	100.7	95.1	1896.	108.7	100.6	95.0
1897.	104.9	100.7	95.1	1897.	108.7	100.6	95.0
1898.	104.9	100.7	96.7	1898.	108.7	100.6	96.9
1899.	107.3	100.4	100.5	1899.	108.7	100.6	100.2
1900.	107.3	100.4	106.9	1900.	108.7	100.6	106.9
1901.	109.8	100.1	106.9	1901.	108.7	100.6	106.9
1902.	119.5	99.0	111.3	1902.	121.7	99.2	111.3
1903.	114.6	98.2	116.4	1903.	126.1	98.8	116.3
1904.	111.0	98.2	118.8	1904.	123.2	98.8	118.5
1905.	97.7	98.6	119.5	1905.	106.3	100.0	117.1

SPLITTERS, HOG, Male.				STICKERS, CATTLE, Male.			
[Data from 6 establishments 1890-1903; 13, 1904; 15, 1905.]				[Data from 5 establishments 1890-1903; 8, 1904; 11, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99.	100.0	100.0	100.0	Average 1890-99.	100.0	100.0	100.0
1890.	100.0	100.1	98.4	1890.	100.0	100.0	103.6
1891.	100.0	100.1	98.4	1891.	100.0	100.0	103.6
1892.	100.0	100.1	98.4	1892.	100.0	100.0	103.6
1893.	100.0	100.1	99.0	1893.	100.0	100.0	103.6
1894.	100.0	100.1	99.0	1894.	100.0	100.0	97.4
1895.	100.0	100.1	100.9	1895.	100.0	100.0	97.4
1896.	100.0	100.1	100.9	1896.	100.0	100.0	97.4
1897.	100.0	100.1	100.9	1897.	100.0	100.0	97.4
1898.	114.3	99.4	101.2	1898.	100.0	100.0	97.4
1899.	114.3	99.4	102.9	1899.	100.0	100.0	98.5
1900.	114.3	99.4	102.9	1900.	100.0	100.0	101.5
1901.	121.4	100.2	102.0	1901.	100.0	100.0	101.5
1902.	121.4	99.6	102.0	1902.	100.0	100.0	108.7
1903.	121.4	99.6	103.4	1903.	111.1	100.9	115.3
1904.	121.4	99.6	110.1	1904.	103.7	100.9	119.3
1905.	121.4	98.7	111.5	1905.	97.9	100.6	119.0

STICKERS, HOG, Male.			
[Data from 6 establishments 1890-1903; 13, 1904, 15, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99.	100.0	100.0	100.0
1890.	100.0	100.0	99.5
1891.	100.0	100.0	99.5
1892.	100.0	100.0	99.5
1893.	100.0	100.0	97.9
1894.	100.0	100.0	97.9
1895.	100.0	100.0	99.5
1896.	100.0	100.0	99.5
1897.	100.0	100.0	101.1

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

STREETS AND SEWERS, CONTRACT WORK.

LABORERS, Male.

[Data from 36 establishments 1890-1903; 70, 1904; 120, 1905.]

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	1898.....	81.4	97.5	105.2
1890.....	102.3	101.2	95.7	1899.....	89.6	99.0	104.9
1891.....	121.7	101.4	98.1	1900.....	99.4	98.8	107.1
1892.....	112.3	101.3	98.2	1901.....	100.1	96.5	114.9
1893.....	109.7	101.0	95.9	1902.....	100.8	95.2	120.2
1894.....	107.3	101.0	97.0	1903.....	103.9	95.1	124.3
1895.....	91.1	100.6	98.5	1904.....	104.2	95.1	125.3
1896.....	98.9	99.7	102.9	1905.....	101.3	94.7	128.6
1897.....	85.6	97.4	103.7				

STREETS AND SEWERS, MUNICIPAL WORK.

LABORERS, Male.

[Data for employees from 47 establishments 1890-1903. Data for hours and wages from 47 establishments 1890-1893; 48, 1894-1903. Data from 58 establishments 1904; 70, 1905.]

Average 1890-99..	100.0	100.0	100.0	1898.....	102.3	98.7	100.9
1890.....	85.8	101.1	90.8	1899.....	108.2	95.7	105.8
1891.....	86.2	100.6	99.5	1900.....	106.6	93.3	110.3
1892.....	94.6	100.9	98.3	1901.....	112.0	92.6	110.6
1893.....	98.8	101.5	98.1	1902.....	99.4	92.7	111.0
1894.....	115.1	100.7	100.9	1903.....	93.5	91.8	111.8
1895.....	103.1	100.0	99.7	1904.....	100.1	91.1	113.8
1896.....	98.4	100.6	98.1	1905.....	109.3	90.9	113.0
1897.....	104.3	100.1	98.7				

TOBACCO, CIGARS.

BUNCH MAKERS, HAND, Male.

[Data for employees from 1 establishment 1890-1903. Data for hours and wages from 2 establishments 1890-1895; 1, 1896-1903. Data from 4 establishments 1904; 11, 1905.]

Average 1890-99..	100.0	100.0	100.0
1890.....	74.4	99.5	98.9
1891.....	81.4	98.3	92.5
1892.....	65.1	93.3	84.2
1893.....	81.4	96.3	112.2
1894.....	102.3	96.5	101.9
1895.....	86.0	96.8	97.3
1896.....	88.4	104.8	100.5
1897.....	120.9	104.8	113.5
1898.....	127.9	104.8	100.4
1899.....	160.5	104.8	98.5
1900.....	27.9	104.8	100.1
1901.....	90.7	104.8	107.2
1902.....	102.3	104.8	101.7
1903.....	134.9	104.8	117.1
1904.....	134.9	100.6	121.8
1905.....	176.3	102.0	115.1

BUNCH MAKERS, HAND, Female.

[Data for employees from 6 establishments 1890-1903. Data for hours and wages from 6 establishments 1890-1895; 7, 1896-1903. Data from 12 establishments 1904; 19, 1905.]

Average 1890-99..	100.0	100.0	100.0
1890.....	89.6	100.0	97.1
1891.....	90.4	100.2	100.1
1892.....	84.3	99.4	98.1
1893.....	91.2	100.9	99.4
1894.....	101.2	101.3	99.9
1895.....	94.8	101.2	98.0
1896.....	92.8	99.1	100.8
1897.....	117.3	98.8	107.8
1898.....	108.8	99.0	101.7
1899.....	128.9	99.9	97.3
1900.....	60.6	93.3	91.9
1901.....	90.4	97.0	104.3
1902.....	97.2	99.3	101.2
1903.....	110.0	100.2	125.3
1904.....	105.3	98.7	135.7
1905.....	105.9	98.2	137.8

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

TOBACCO, CIGARS—Continued.

BUNCH MAKERS, MACHINE, Female.				CIGAR MAKERS, Male.			
[Data from 3 establishments 1890-1903; 8, 1904; 9, 1905.]				[Data from 9 establishments 1890-1903; 22, 1904; 34, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99	100.0	100.0	100.0	Average 1890-99	100.0	100.0	100.0
1890	74.8	100.7	101.8	1890	83.6	97.9	102.8
1891	80.0	100.7	102.0	1891	101.6	96.4	108.2
1892	87.4	100.8	103.6	1892	105.8	99.3	105.9
1893	78.5	100.7	101.1	1893	145.4	100.8	101.2
1894	92.6	100.8	95.0	1894	120.6	99.5	100.5
1895	134.8	100.8	95.8	1895	110.6	98.9	99.0
1896	95.6	98.9	96.8	1896	90.3	102.7	94.0
1897	140.0	99.3	95.8	1897	69.7	98.7	96.8
1898	100.0	98.5	104.0	1898	70.6	101.4	92.4
1899	112.6	98.9	104.4	1899	102.5	104.3	99.2
1900	134.8	99.1	108.6	1900	136.6	105.1	99.7
1901	148.9	99.1	105.2	1901	174.3	106.4	105.1
1902	163.0	99.3	113.4	1902	125.7	104.8	106.9
1903	170.4	99.3	113.7	1903	127.3	105.4	107.9
1904	180.4	99.3	116.3	1904	146.6	106.6	111.2
1905	168.4	97.7	116.5	1905	159.9	107.3	112.2

CIGAR ROLLERS, HAND, Male.				CIGAR ROLLERS, HAND, Female.			
[Data for employees from 4 establishments 1890-1903. Data for hours and wages from 7 establishments 1890-1895; 5, 1896; 1897; 4, 1898-1903. Data from 5 establishments 1904; 9, 1905.]				[Data for employees from 4 establishments 1890-1903. Data for hours and wages from 4 establishments 1890-1895; 6, 1896; 1897; 7, 1898-1903. Data from 16 establishments 1904; 18, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99	100.0	100.0	100.0	Average 1890-99	100.0	100.0	100.0
1890	93.0	99.1	101.2	1890	87.8	101.0	99.7
1891	95.0	98.9	98.4	1891	89.6	101.0	99.7
1892	88.9	97.3	96.9	1892	77.1	100.7	101.3
1893	91.5	98.8	102.3	1893	91.4	100.8	97.6
1894	96.5	99.7	99.2	1894	105.4	101.2	99.0
1895	99.0	99.3	100.1	1895	97.3	101.2	105.3
1896	95.5	100.7	100.1	1896	88.1	97.8	97.6
1897	111.6	102.0	98.9	1897	122.9	98.6	98.7
1898	111.1	101.8	100.5	1898	116.1	98.7	98.6
1899	117.1	102.3	102.2	1899	125.3	98.9	102.8
1900	71.9	96.4	102.9	1900	48.8	93.6	80.1
1901	86.9	99.0	113.4	1901	74.4	95.8	105.8
1902	91.0	99.4	117.4	1902	82.4	97.0	111.6
1903	91.5	99.8	113.3	1903	87.2	97.6	116.7
1904	94.9	97.9	114.4	1904	98.7	96.9	110.4
1905	90.5	98.1	113.7	1905	95.9	96.4	119.9

CIGAR ROLLERS, MACHINE, Female.				PACKERS, Male.			
[Data from 2 establishments 1890-1903; 7, 1904; 10, 1905.]				[Data for employees from 11 establishments 1890-1903. Data for hours and wages from 11 establishments 1890-1892; 12, 1893-1898; 11, 1899-1903. Data from 22 establishments 1904; 35, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99	100.0	100.0	100.0	Average 1890-99	100.0	100.0	100.0
1890	51.1	100.4	104.5	1890	71.4	100.3	91.8
1891	51.1	100.4	105.5	1891	75.2	100.2	100.9
1892	78.7	100.4	104.3	1892	95.3	100.6	99.3
1893	64.7	100.4	107.7	1893	87.6	100.5	98.4
1894	93.3	100.4	106.2	1894	103.1	100.4	98.7
1895	138.3	100.4	96.4	1895	102.3	100.5	100.1
1896	128.9	99.6	92.0	1896	93.8	99.2	103.1
1897	121.9	99.2	94.8	1897	117.8	99.6	100.9
1898	141.3	99.4	91.9	1898	121.7	99.3	102.2
1899	122.2	99.2	93.8	1899	131.8	99.4	104.7
1900	151.4	99.5	107.5	1900	72.9	99.6	104.6
1901	165.7	99.5	129.5	1901	76.7	98.9	108.0
1902	204.3	99.7	124.0	1902	94.6	99.9	103.1
1903	204.9	99.7	129.2	1903	83.7	100.8	114.2
1904	177.4	99.0	136.4	1904	80.6	100.5	118.1
1905	178.4	99.0	138.0	1905	74.6	100.1	119.9

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

TOBACCO, CIGARS—Concluded.

PACKERS, Female.				STEMMERS, Male.			
[Data for employees from 3 establishments 1890-1903. Data for hours and wages from 3 establishments 1890-1899; 4, 1900-1903. Data from 13 establishments 1904; 17, 1905.]				[Data for employees from 3 establishments 1890-1903. Data for hours and wages from 4 establishments 1890-1897, 1899; 3, 1898, 1900-1903. Data from 5 establishments 1904; 13, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	61.5	101.7	109.1	1890.....	52.1	99.9	106.6
1891.....	92.3	99.7	107.7	1891.....	75.5	100.0	103.0
1892.....	107.7	99.2	109.1	1892.....	109.6	100.0	95.5
1893.....	130.8	98.6	96.6	1893.....	144.7	100.0	89.4
1894.....	115.4	99.0	89.3	1894.....	104.3	100.0	95.8
1895.....	115.4	99.0	88.2	1895.....	124.5	100.0	91.9
1896.....	61.5	101.7	102.1	1896.....	120.2	100.0	94.2
1897.....	100.0	99.4	96.4	1897.....	56.4	99.9	109.4
1898.....	92.3	99.7	102.0	1898.....	91.5	100.1	108.9
1899.....	84.6	102.1	99.6	1899.....	121.3	100.1	105.8
1900.....	115.4	106.6	80.1	1900.....	114.9	100.1	118.7
1901.....	100.0	106.7	116.8	1901.....	60.6	100.1	121.8
1902.....	138.5	106.1	103.5	1902.....	72.3	100.1	112.3
1903.....	123.1	107.0	86.0	1903.....	73.4	100.1	141.8
1904.....	123.8	106.2	93.8	1904.....	48.3	97.3	126.2
1905.....	144.6	105.9	94.2	1905.....	47.5	95.0	138.9

STEMMERS, Female.

[Data for employees from 13 establishments 1890-1903. Data for hours and wages from 14 establishments 1890, 1894-1896, 1898-1903; 13, 1891-1893, 1897. Data from 33 establishments 1904; 46, 1905.]

Average 1890-99..	100.0	100.0	100.0	1898.....	103.6	100.7	109.8
1890.....	91.0	100.9	90.2	1899.....	112.0	101.0	105.8
1891.....	102.5	99.8	88.6	1900.....	97.3	99.8	105.5
1892.....	93.4	100.2	97.3	1901.....	98.2	99.3	120.0
1893.....	94.8	98.5	94.4	1902.....	105.0	100.0	117.0
1894.....	104.3	99.9	100.7	1903.....	100.9	101.0	120.4
1895.....	106.1	99.3	97.2	1904.....	107.8	101.4	125.1
1896.....	92.1	99.9	103.0	1905.....	116.1	100.9	124.1
1897.....	100.2	99.8	112.9				

WOOLEN AND WORSTED GOODS.

BURLERS, Female.				CARDERS, Male.			
[Data from 10 establishments 1890-1903, 13, 1904; 25, 1905.]				[Data from 13 establishments 1890-1903; 14, 1904; 24, 1905.]			
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	100.0	103.1	93.3	1890.....	97.4	101.9	99.1
1891.....	107.0	103.1	93.7	1891.....	103.1	101.8	99.6
1892.....	108.0	102.8	97.5	1892.....	110.8	101.8	101.7
1893.....	104.3	99.5	100.5	1893.....	95.4	100.5	103.4
1894.....	78.6	92.8	99.2	1894.....	99.0	100.5	98.5
1895.....	94.1	101.7	99.6	1895.....	106.2	100.4	97.7
1896.....	89.3	101.6	107.9	1896.....	103.1	100.5	98.1
1897.....	100.5	92.4	100.4	1897.....	102.1	91.8	101.7
1898.....	108.0	101.7	102.9	1898.....	94.4	100.4	99.8
1899.....	112.3	101.2	105.5	1899.....	88.2	100.3	100.0
1900.....	120.9	101.4	111.3	1900.....	99.6	100.2	110.9
1901.....	155.6	101.5	108.3	1901.....	115.9	100.3	106.2
1902.....	164.2	100.1	113.3	1902.....	115.4	99.9	106.7
1903.....	175.4	99.6	119.4	1903.....	135.9	99.5	109.4
1904.....	184.9	98.1	118.7	1904.....	125.5	98.6	115.0
1905.....	179.1	98.9	124.4	1905.....	122.0	100.0	116.8

TABLE II.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Continued.

WOOLEN AND WORSTED GOODS—Continued.

CARDERS, Female.				CARD STRIPPERS, Male.			
[Data for employees from 1 establishment 1890-1903. Data for hours and wages from 4 establishments 1890, 1901; 2, 1892, 1895, 1897; 1, 1893; 3, 1891, 1894, 1896, 1899, 1900, 1902, 1903; 5, 1898. Data from 4 establishments 1904, 1905.]				[Data from 3 establishments 1890-1903; 8, 1904; 13, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99.	100.0	100.0	100.0	Average 1890-99.	100.0	100.0	100.0
1890.	100.0	100.5	104.1	1890.	92.3	100.0	92.4
1891.	100.0	100.5	104.6	1891.	100.0	100.0	99.3
1892.	100.0	100.5	101.1	1892.	90.2	100.0	103.3
1893.	100.0	100.5	79.1	1893.	76.9	100.0	99.5
1894.	100.0	96.3	97.6	1894.	92.3	100.0	99.0
1895.	100.0	100.5	103.5	1895.	107.7	100.0	96.5
1896.	100.0	100.2	100.3	1896.	100.0	100.0	104.0
1897.	100.0	100.5	96.0	1897.	115.4	100.0	100.2
1898.	100.0	99.9	108.1	1898.	123.1	100.0	98.9
1899.	100.0	100.5	105.5	1899.	100.0	100.0	106.7
1900.	100.0	100.5	107.0	1900.	107.7	100.0	111.4
1901.	100.0	100.4	112.8	1901.	107.7	100.0	112.2
1902.	100.0	100.5	108.9	1902.	84.6	100.0	116.6
1903.	100.0	100.5	111.9	1903.	69.2	100.0	117.6
1904.	71.0	99.4	127.2	1904.	70.6	98.4	120.5
1905.	43.2	100.0	123.6	1905.	72.6	98.1	121.8

COMBERS, Male.				COMBERS, Female.			
[Data from 1 establishment 1890-1903; 2, 1904; 6, 1905.]				[Data from 4 establishments 1890-1903; 5, 1904, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99.	100.0	100.0	100.0	Average 1890-99.	100.0	100.0	100.0
1890.	33.3	102.4	95.7	1890.	76.4	100.5	96.3
1891.	122.2	102.4	98.9	1891.	96.4	100.5	98.8
1892.	100.0	102.4	95.7	1892.	116.4	100.5	96.5
1893.	77.8	99.0	99.5	1893.	129.1	99.4	101.3
1894.	77.8	99.0	107.2	1894.	85.5	99.9	93.4
1895.	100.0	99.0	94.0	1895.	80.1	100.0	96.3
1896.	100.0	99.0	104.6	1896.	98.2	99.9	103.1
1897.	155.6	99.0	95.4	1897.	101.8	99.8	102.9
1898.	155.6	99.0	95.9	1898.	109.1	99.8	104.0
1899.	122.2	99.0	113.3	1899.	100.0	99.8	103.3
1900.	144.4	99.0	106.6	1900.	109.1	99.9	110.3
1901.	122.2	99.0	107.9	1901.	116.4	99.8	111.1
1902.	188.9	99.0	103.8	1902.	110.9	98.3	112.6
1903.	244.4	99.0	102.1	1903.	116.4	98.4	110.4
1904.	366.6	99.6	93.3	1904.	126.5	98.0	105.8
1905.	378.8	99.3	94.8	1905.	150.9	97.4	101.7

DYERS, Male.				LOOM FIXERS, Male.			
[Data from 13 establishments 1890-1903; 15, 1904; 24, 1905.]				[Data from 15 establishments 1890-1903; 16, 1904; 26, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99.	100.0	100.0	100.0	Average 1890-99.	100.0	100.0	100.0
1890.	93.8	99.5	100.2	1890.	100.0	100.5	98.3
1891.	90.7	99.6	101.5	1891.	96.7	100.4	98.2
1892.	107.3	99.5	100.7	1892.	101.3	100.3	100.2
1893.	100.0	98.4	103.1	1893.	96.1	99.9	102.0
1894.	97.9	101.8	95.5	1894.	90.1	97.1	96.4
1895.	106.7	101.4	96.5	1895.	93.4	100.4	96.7
1896.	98.4	100.4	98.5	1896.	98.7	100.4	101.2
1897.	107.8	97.8	99.4	1897.	103.3	100.4	102.0
1898.	100.5	100.7	101.4	1898.	111.2	100.2	102.0
1899.	94.3	100.8	102.6	1899.	106.6	100.4	102.8
1900.	95.9	100.5	109.3	1900.	117.8	100.3	112.5
1901.	101.6	100.6	106.8	1901.	111.8	100.3	112.5
1902.	105.7	99.1	108.4	1902.	115.1	99.1	114.0
1903.	106.7	99.6	108.2	1903.	114.5	99.0	115.9
1904.	107.9	98.9	108.9	1904.	112.5	98.2	112.7
1905.	110.4	99.9	109.3	1905.	120.1	98.8	114.6

TABLE III.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY OCCUPATIONS—Concluded.

WOOLEN AND WORSTED GOODS—Concluded.

SPINNERS, FRAME, Female.				SPINNERS, MULE, Male.			
[Data from 3 establishments 1890-1903; 4, 1904; 8, 1905.]				[Data for employees from 9 establishments 1890-1903. Data for hours and wages from 9 establishments 1890-1892; 10, 1893-1896; 11, 1897-1903. Data from 14 establishments 1904; 22, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	73.7	100.9	96.7	1890.....	99.3	102.7	96.6
1891.....	81.8	100.9	97.6	1891.....	104.8	102.7	95.5
1892.....	118.7	100.9	98.4	1892.....	97.9	102.6	93.9
1893.....	100.0	99.6	103.5	1893.....	90.4	99.2	101.5
1894.....	106.7	99.8	94.2	1894.....	84.9	90.4	98.1
1895.....	105.7	99.8	95.1	1895.....	105.5	101.6	96.2
1896.....	94.3	99.7	101.1	1896.....	102.7	101.6	103.7
1897.....	107.2	99.6	102.5	1897.....	102.1	94.6	104.2
1898.....	118.7	99.5	104.4	1898.....	110.3	101.6	111.1
1899.....	94.7	99.3	106.5	1899.....	101.4	102.9	99.0
1900.....	110.5	99.2	118.0	1900.....	107.5	101.8	115.6
1901.....	119.1	99.4	115.4	1901.....	105.5	101.7	114.3
1902.....	146.9	97.7	122.8	1902.....	139.0	100.9	114.0
1903.....	173.7	98.0	123.2	1903.....	150.0	100.4	124.8
1904.....	142.6	98.0	120.2	1904.....	148.9	98.8	125.9
1905.....	130.9	97.9	121.6	1905.....	145.8	98.6	131.1

WEAVERS, Male.				WEAVERS, Female.			
[Data for employees from 9 establishments 1890-1903. Data for hours and wages from 10 establishments 1890-1900; 11, 1901-1903. Data from 17 establishments 1904; 26, 1905.]				[Data for employees from 9 establishments 1890-1903. Data for hours and wages from 10 establishments 1890-1895, 1901-1903; 9, 1896-1900. Data from 17 establishments 1904; 27, 1905.]			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
Average 1890-99..	100.0	100.0	100.0	Average 1890-99..	100.0	100.0	100.0
1890.....	92.1	100.6	101.6	1890.....	106.4	101.0	100.4
1891.....	98.8	100.6	102.2	1891.....	112.7	101.0	99.1
1892.....	103.9	100.6	103.8	1892.....	96.1	101.0	100.8
1893.....	93.6	99.5	109.7	1893.....	107.2	99.5	106.7
1894.....	80.9	99.7	92.8	1894.....	100.5	99.6	94.3
1895.....	96.7	99.7	94.9	1895.....	92.9	99.6	93.8
1896.....	103.0	99.8	94.7	1896.....	93.5	99.7	96.7
1897.....	113.6	99.7	98.0	1897.....	92.5	99.7	100.7
1898.....	115.7	99.8	101.1	1898.....	105.2	99.4	104.6
1899.....	101.1	99.8	100.9	1899.....	93.4	99.4	102.4
1900.....	138.4	99.6	111.7	1900.....	105.0	99.4	109.8
1901.....	142.8	99.6	113.6	1901.....	107.0	99.4	112.5
1902.....	139.3	98.7	120.4	1902.....	106.4	98.2	112.5
1903.....	171.7	98.4	124.7	1903.....	108.2	98.2	115.9
1904.....	162.2	98.1	116.6	1904.....	106.5	97.1	113.4
1905.....	163.2	98.5	123.8	1905.....	117.2	98.0	117.1

TABLE III.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY INDUSTRIES.

[Average 1890-1899=100.0. For explanation of relative figures, see page 13.]

AGRICULTURAL IMPLEMENTS.				BAKERY, BREAD.			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
1890.	86.2	100.3	97.1	1890.	93.3	100.8	99.3
1891.	88.2	100.3	100.8	1891.	94.6	100.8	99.9
1892.	95.1	100.3	101.6	1892.	96.1	100.9	100.3
1893.	105.1	100.3	102.5	1893.	96.0	100.5	100.2
1894.	95.8	99.2	97.3	1894.	97.2	100.4	98.4
1895.	98.1	100.3	96.4	1895.	100.2	99.9	98.7
1896.	94.5	99.9	102.0	1896.	102.1	99.6	99.6
1897.	95.3	99.0	99.4	1897.	102.6	100.2	99.8
1898.	120.9	100.2	101.0	1898.	107.9	99.1	100.6
1899.	120.6	100.2	101.8	1899.	109.8	97.8	103.1
1900.	130.7	100.2	105.8	1900.	114.0	96.9	106.6
1901.	105.9	100.2	107.6	1901.	121.0	96.3	108.8
1902.	115.8	100.2	112.8	1902.	130.4	95.8	113.9
1903.	124.8	99.4	117.2	1903.	133.7	93.9	118.9
1904.	108.5	97.3	122.5	1904.	142.6	93.6	121.1
1905.	123.7	97.1	124.4	1905.	148.1	92.5	123.5

BLACKSMITHING AND HORSE-SHOING.				BOOTS AND SHOES.			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
1890.	101.8	101.1	98.9	1890.	77.2	100.2	97.9
1891.	100.9	101.1	98.7	1891.	80.0	100.8	96.2
1892.	102.5	101.0	98.8	1892.	86.4	100.5	98.2
1893.	101.1	100.2	99.2	1893.	97.1	100.1	100.5
1894.	98.7	99.7	99.1	1894.	99.0	99.9	99.5
1895.	96.6	99.6	99.1	1895.	103.2	99.9	100.6
1896.	98.7	99.5	99.9	1896.	110.5	99.8	100.7
1897.	97.9	99.4	100.9	1897.	111.3	99.7	102.5
1898.	101.1	99.3	102.2	1898.	111.3	99.6	101.8
1899.	101.3	99.0	102.9	1899.	118.4	99.5	102.3
1900.	102.4	98.4	104.5	1900.	123.2	99.0	105.3
1901.	105.1	97.7	106.6	1901.	127.7	99.2	105.2
1902.	101.5	97.0	108.6	1902.	124.0	98.0	108.8
1903.	101.9	96.4	112.2	1903.	130.4	96.6	115.6
1904.	100.3	95.5	114.8	1904.	143.8	96.9	117.1
1905.	101.9	95.2	116.2	1905.	155.4	96.8	118.4

BRICK.				BUILDING TRADES.			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
1890.	98.6	99.9	101.0	1890.	96.5	102.5	97.0
1891.	97.6	99.9	101.3	1891.	100.0	101.8	97.9
1892.	99.7	100.0	102.7	1892.	106.8	100.7	99.9
1893.	100.2	100.0	101.8	1893.	101.7	100.5	100.0
1894.	98.7	100.1	99.1	1894.	99.2	100.7	97.6
1895.	97.9	100.0	98.5	1895.	92.4	100.3	98.4
1896.	100.4	100.0	97.1	1896.	99.2	99.2	99.9
1897.	100.9	99.9	97.4	1897.	99.7	98.6	101.3
1898.	101.5	100.1	100.1	1898.	134.1	98.1	102.8
1899.	104.1	100.2	101.1	1899.	109.8	97.5	105.3
1900.	102.7	99.9	103.1	1900.	111.6	95.5	109.9
1901.	104.6	100.0	105.1	1901.	119.8	94.4	114.5
1902.	108.5	99.9	110.1	1902.	126.1	92.6	121.1
1903.	109.9	99.3	112.2	1903.	124.2	91.8	126.8
1904.	110.1	98.6	112.8	1904.	122.5	91.3	129.7
1905.	110.5	98.8	113.8	1905.	128.0	91.2	132.2

CANDY.							
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
1890.	112.7	99.3	102.3	1898.	89.6	100.4	100.5
1891.	108.9	99.3	103.3	1899.	92.9	100.4	100.7
1892.	103.2	100.0	99.8	1900.	96.6	100.4	99.0
1893.	104.2	100.0	98.2	1901.	91.2	100.3	109.5
1894.	95.7	99.9	98.8	1902.	91.9	100.3	108.6
1895.	95.8	100.3	98.9	1903.	103.1	100.2	103.3
1896.	94.8	100.3	100.0	1904.	107.6	100.3	112.2
1897.	99.2	100.3	98.1	1905.	113.4	100.1	114.3

TABLE III.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY INDUSTRIES—Continued.

[Average 1890-1899=100.0.]

CARPETS.				CARRIAGES AND WAGONS.			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
1890	104.2	101.2	99.6	1890	95.5	100.4	100.0
1891	100.5	101.2	97.9	1891	98.6	100.6	99.4
1892	100.6	100.4	100.0	1892	102.9	100.4	100.4
1893	105.5	99.5	96.8	1893	103.4	100.1	99.7
1894	87.0	99.6	95.3	1894	95.7	99.5	99.2
1895	101.8	99.5	97.2	1895	97.2	100.0	98.1
1896	102.6	99.5	101.9	1896	92.8	99.7	100.7
1897	93.1	99.6	101.8	1897	97.8	99.8	100.2
1898	96.9	99.6	103.0	1898	104.6	100.3	100.1
1899	106.4	99.6	103.7	1899	111.0	99.2	102.3
1900	111.5	99.7	104.1	1900	112.7	99.2	102.2
1901	115.2	99.6	108.1	1901	121.4	99.5	101.6
1902	119.4	99.6	105.4	1902	115.2	99.7	103.4
1903	122.5	99.3	111.3	1903	116.2	98.4	107.6
1904	129.9	98.3	108.1	1904	112.9	98.3	108.9
1905	128.1	98.4	111.7	1905	117.9	96.9	111.6

CARS, STEAM RAILROAD.				CLOTHING, FACTORY PRODUCT.			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
1890	101.0	101.6	102.9	1890	94.8	100.3	99.5
1891	102.2	101.1	102.4	1891	95.6	100.3	99.7
1892	103.9	101.6	101.5	1892	99.6	100.3	99.6
1893	107.3	101.2	104.0	1893	99.0	100.1	100.0
1894	85.8	97.1	97.8	1894	97.0	100.1	97.2
1895	88.6	98.9	97.8	1895	97.7	100.0	98.7
1896	96.6	98.8	97.6	1896	97.1	99.8	99.9
1897	94.5	98.0	98.2	1897	99.6	99.7	100.4
1898	107.3	100.8	98.0	1898	102.5	99.7	101.9
1899	111.9	101.1	99.8	1899	105.9	99.8	103.2
1900	118.7	101.4	100.7	1900	112.2	99.0	103.0
1901	123.8	100.6	101.7	1901	114.9	98.0	106.7
1902	128.9	100.6	105.7	1902	121.7	97.6	103.1
1903	136.5	98.1	111.5	1903	126.9	97.3	105.9
1904	137.6	96.8	116.2	1904	129.4	96.9	110.0
1905	145.1	96.2	114.9	1905	143.7	96.9	111.2

CLOTHING, MEN'S, CUSTOM WORK.				COTTON GOODS.			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
1890	96.4	100.5	100.3	1890	87.7	99.9	102.8
1891	95.3	100.1	100.4	1891	98.3	100.7	98.9
1892	97.9	100.2	100.4	1892	95.8	101.2	100.3
1893	99.0	100.3	101.5	1893	98.2	99.9	103.6
1894	95.4	100.2	101.0	1894	96.1	98.6	96.9
1895	96.7	100.1	100.9	1895	94.9	100.0	96.9
1896	102.2	100.2	98.4	1896	98.8	99.5	104.9
1897	111.8	100.2	100.2	1897	104.6	99.4	101.2
1898	113.6	99.4	100.4	1898	112.5	100.3	97.4
1899	112.7	98.9	96.6	1899	112.1	100.4	97.3
1900	116.8	98.9	105.2	1900	115.5	100.2	109.2
1901	125.9	99.0	106.6	1901	109.0	100.0	110.4
1902	128.7	98.9	107.7	1902	117.2	99.2	116.2
1903	130.7	97.1	111.1	1903	107.2	99.0	123.2
1904	137.7	97.3	110.3	1904	105.3	99.1	119.7
1905	137.0	97.3	113.2	1905	104.9	99.1	125.5

DYEING, FINISHING, AND PRINTING TEXTILES.							
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
1890	97.3	101.7	98.6	1898	102.2	99.6	101.5
1891	98.9	101.7	97.5	1899	110.9	99.6	101.2
1892	99.5	101.1	99.4	1900	112.6	99.6	103.3
1893	100.4	99.5	100.7	1901	117.6	99.6	103.5
1894	92.7	98.9	99.4	1902	126.2	99.6	104.3
1895	95.5	99.5	99.6	1903	128.1	99.6	105.0
1896	98.7	99.5	101.1	1904	126.8	99.9	105.6
1897	104.4	98.9	101.0	1905	143.4	103.1	106.0

TABLE III.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY INDUSTRIES—Continued.

[Average 1890-1899=100.0.]

ELECTRICAL APPARATUS AND SUPPLIES.				FLOUR.			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
1890.....	54.7	100.0	98.6	1890.....	90.3	100.3	99.4
1891.....	55.1	100.0	98.7	1891.....	89.4	100.1	100.3
1892.....	57.1	100.1	98.2	1892.....	91.6	100.1	100.3
1893.....	65.6	100.1	97.7	1893.....	96.1	100.1	99.7
1894.....	79.3	100.4	95.7	1894.....	92.8	100.3	98.7
1895.....	100.6	100.4	97.3	1895.....	92.4	100.3	98.5
1896.....	130.1	99.6	90.7	1896.....	106.5	99.9	99.8
1897.....	137.1	99.9	103.0	1897.....	107.1	100.1	100.1
1898.....	132.5	99.7	105.8	1898.....	117.2	99.5	101.5
1899.....	169.4	99.9	105.5	1899.....	117.7	99.4	101.8
1900.....	203.4	100.1	102.6	1900.....	118.7	99.3	103.3
1901.....	213.2	94.1	107.8	1901.....	120.6	99.3	107.6
1902.....	231.0	94.1	107.3	1902.....	123.4	98.1	110.4
1903.....	249.7	94.1	110.8	1903.....	124.0	97.7	111.2
1904.....	226.1	94.1	110.2	1904.....	124.0	97.5	111.4
1905.....	295.9	94.0	110.8	1905.....	130.2	97.8	111.0

FOUNDRY AND MACHINE SHOP.				FURNITURE.			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
1890.....	101.8	100.5	99.2	1890.....	93.7	101.2	99.3
1891.....	101.1	100.4	100.3	1891.....	95.3	100.4	101.9
1892.....	94.5	100.2	102.7	1892.....	101.4	99.5	102.5
1893.....	99.6	100.0	101.6	1893.....	98.5	100.2	100.5
1894.....	87.7	99.9	98.7	1894.....	95.2	98.3	99.2
1895.....	93.2	100.1	99.1	1895.....	96.1	100.0	97.0
1896.....	93.9	99.8	100.5	1896.....	99.0	100.4	97.6
1897.....	93.5	99.7	99.7	1897.....	102.8	99.9	100.3
1898.....	108.1	99.9	99.0	1898.....	104.5	100.2	98.7
1899.....	125.1	99.4	99.1	1899.....	113.4	100.0	103.0
1900.....	126.8	99.2	101.5	1900.....	110.0	99.7	103.4
1901.....	132.0	98.1	104.7	1901.....	113.5	98.4	110.4
1902.....	139.2	96.6	108.2	1902.....	119.8	97.3	117.0
1903.....	149.1	95.4	112.2	1903.....	117.2	97.2	118.2
1904.....	133.2	94.6	113.9	1904.....	116.3	96.3	119.9
1905.....	155.0	94.8	114.0	1905.....	120.7	96.1	122.1

GAS.				GLASS.			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
1890.....	110.1	100.6	99.5	1890.....	99.4	100.1	101.5
1891.....	95.4	100.7	99.0	1891.....	108.2	99.9	100.2
1892.....	91.3	101.0	99.6	1892.....	101.6	100.0	101.3
1893.....	84.1	101.0	100.4	1893.....	97.6	100.1	100.2
1894.....	100.5	101.0	101.2	1894.....	93.1	99.8	99.1
1895.....	95.6	100.7	99.7	1895.....	92.8	99.9	92.6
1896.....	93.2	100.9	101.0	1896.....	95.7	100.0	96.6
1897.....	111.0	100.8	100.7	1897.....	95.9	100.3	98.3
1898.....	129.8	97.3	98.6	1898.....	104.9	100.0	101.2
1899.....	91.6	96.3	100.3	1899.....	108.7	99.9	103.5
1900.....	104.0	94.8	101.3	1900.....	110.3	100.3	107.7
1901.....	99.0	97.4	96.5	1901.....	112.6	100.0	107.5
1902.....	121.1	95.3	104.9	1902.....	115.0	99.9	115.0
1903.....	119.4	96.3	101.3	1903.....	116.7	99.7	120.0
1904.....	138.0	96.2	101.8	1904.....	117.8	99.6	110.3
1905.....	141.4	96.2	102.0	1905.....	119.2	99.4	116.6

HARNES.			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
1890.....	91.0	100.4	100.2
1891.....	101.8	100.4	100.6
1892.....	94.1	100.2	100.6
1893.....	94.2	100.1	101.0
1894.....	94.5	100.0	99.0
1895.....	90.3	99.8	98.5
1896.....	104.3	99.7	98.7
1897.....	105.9	99.8	99.5
1898.....	110.2	99.9	100.7
1899.....	117.6	99.7	101.2
1900.....	124.5	99.8	102.0
1901.....	128.5	99.5	105.6
1902.....	135.7	99.0	108.7
1903.....	134.8	98.0	115.8
1904.....	137.6	97.6	118.0
1905.....	135.8	97.0	118.6

TABLE III.—RELATIVE WAGES AND HOURS OF LABOR, 1890 TO 1905, BY INDUSTRIES—Continued.

[Average 1890-1899=100.0.]

HATS, FUR.				HOSIERY AND KNIT GOODS.			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
1890.....	86.2	100.7	104.4	1890.....	81.3	101.5	105.1
1891.....	94.0	100.5	100.5	1891.....	89.3	101.5	107.3
1892.....	90.9	100.5	100.0	1892.....	122.6	101.5	99.0
1893.....	100.0	100.2	97.5	1893.....	116.4	100.3	102.5
1894.....	103.2	100.2	99.6	1894.....	83.7	95.0	97.7
1895.....	90.1	100.1	97.8	1895.....	99.8	100.2	102.9
1896.....	94.5	100.2	98.8	1896.....	93.1	100.0	99.8
1897.....	101.0	100.0	100.6	1897.....	93.1	100.1	94.7
1898.....	109.5	99.4	99.8	1898.....	111.3	100.0	95.5
1899.....	132.1	98.3	100.9	1899.....	107.9	100.0	94.7
1900.....	147.0	98.5	102.4	1900.....	120.8	98.9	98.0
1901.....	160.9	98.7	103.0	1901.....	131.8	98.7	102.4
1902.....	164.6	94.2	110.3	1902.....	121.2	98.9	108.7
1903.....	168.6	92.6	113.8	1903.....	125.6	98.4	115.5
1904.....	166.9	92.9	115.7	1904.....	125.6	98.3	113.5
1905.....	186.5	92.3	119.2	1905.....	167.0	98.3	120.8

IRON AND STEEL, BAR.				IRON AND STEEL, BESSEMER CONVERTING.			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
1890.....	99.4	102.7	110.3	1890.....	99.5	98.3	113.3
1891.....	98.4	101.6	104.9	1891.....	104.8	98.1	115.9
1892.....	98.3	101.8	100.0	1892.....	101.2	101.8	112.3
1893.....	105.9	101.4	95.7	1893.....	102.3	99.2	105.5
1894.....	100.2	101.3	90.1	1894.....	100.0	100.1	96.1
1895.....	103.7	100.7	91.7	1895.....	100.0	100.2	97.3
1896.....	93.9	101.0	92.3	1896.....	99.0	101.1	92.5
1897.....	97.7	97.1	98.0	1897.....	100.1	100.2	86.3
1898.....	99.7	96.6	96.3	1898.....	99.0	101.0	88.1
1899.....	101.6	95.9	113.7	1899.....	100.1	100.2	92.8
1900.....	108.9	97.3	118.2	1900.....	118.7	91.3	106.2
1901.....	100.7	98.4	119.7	1901.....	113.9	94.6	113.1
1902.....	104.1	98.8	132.8	1902.....	113.9	94.6	122.6
1903.....	109.2	98.4	130.5	1903.....	115.0	96.0	131.8
1904.....	100.2	97.9	125.6	1904.....	116.6	91.1	114.7
1905.....	103.6	98.1	126.9	1905.....	118.3	91.2	123.3

IRON AND STEEL, BLAST FURNACE.				LEATHER.			
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
1890.....	94.1	100.0	104.4	1890.....	81.7	99.9	102.1
1891.....	95.1	100.0	105.3	1891.....	89.9	99.9	102.5
1892.....	106.1	100.0	107.1	1892.....	99.7	99.8	102.3
1893.....	99.7	100.0	105.2	1893.....	83.9	99.9	102.1
1894.....	99.8	100.0	91.4	1894.....	95.5	99.9	98.3
1895.....	100.2	100.0	90.5	1895.....	100.9	100.0	98.8
1896.....	98.9	100.0	100.1	1896.....	90.5	100.0	98.9
1897.....	98.3	100.0	93.4	1897.....	102.9	100.2	98.5
1898.....	102.6	100.0	93.9	1898.....	129.4	100.3	96.9
1899.....	104.1	100.0	102.8	1899.....	127.1	100.1	99.6
1900.....	104.1	100.0	107.3	1900.....	127.9	100.1	98.1
1901.....	106.5	100.0	108.1	1901.....	128.0	100.2	101.4
1902.....	104.2	100.0	111.2	1902.....	117.6	100.1	104.3
1903.....	101.7	100.0	114.4	1903.....	132.5	100.1	106.3
1904.....	100.2	99.6	109.6	1904.....	143.0	99.5	108.2
1905.....	104.7	100.6	112.6	1905.....	147.3	99.9	108.3

LIQUORS, MALT.							
Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.
1890.....	92.8	100.8	97.7	1898.....	101.1	98.7	102.5
1891.....	92.9	100.3	98.8	1899.....	104.5	98.8	102.7
1892.....	94.9	100.5	98.3	1900.....	104.4	96.4	108.0
1893.....	103.2	100.5	98.8	1901.....	115.4	94.2	111.2
1894.....	104.5	100.5	99.5	1902.....	118.1	91.0	117.5
1895.....	102.0	100.4	100.2	1903.....	126.1	89.9	120.3
1896.....	101.2	99.8	100.5	1904.....	127.2	89.7	122.2
1897.....	103.1	99.9	101.1	1905.....	128.2	89.5	124.4

TABLE III. RELATIVE WAGES AND HOURS IN MANUFACTURING INDUSTRIES, 1900 AND 1905. IN

(Average of 1900 and 1905.)

MANUFACTURING.

Year.	Relative number of employees.	Relative hours per week.	Relative wages per hour.	Average wages per hour.	
				1900.	1905.
1900	101.2	100.4	100.0		
1901	105.7	100.2	100.0		
1902	106.1	100.2	100.0		
1903	105.6	99.7	100.0		
1904	105.3	99.7	100.0		
1905	106.3	100.1	100.0		
1906	100.1	100.1	100.0		
1907	105.0	99.9	100.0		
1908	107.6	99.8	100.0		
1909	111.3	99.8	100.0		
1910	115.5	99.5	100.0		
1911	118.7	99.1	100.0		
1912	123.6	98.4	100.0		
1913	124.9	98.3	100.0		
1914	127.3	98.1	100.0		
1915	131.3	98.1	100.0		

PAPER AND WOOD PULP.

1900	102.0	100.5	100.0		
1901	105.4	100.4	100.0		
1902	106.6	100.4	100.0		
1903	100.6	99.5	100.0		
1904	103.4	100.0	100.0		
1905	100.6	100.0	100.0		
1906	105.6	100.0	100.0		
1907	100.3	100.8	100.0		
1908	105.0	100.0	100.0		
1909	107.6	100.0	100.0		
1910	114.9	100.0	100.0		
1911	118.4	100.0	100.0		
1912	123.6	100.0	100.0		
1913	124.9	100.0	100.0		
1914	127.3	100.0	100.0		
1915	131.3	100.0	100.0		

TEXTILES.

1900	100.0	100.0	100.0		
1901	100.0	100.0	100.0		
1902	100.0	100.0	100.0		
1903	100.0	100.0	100.0		
1904	100.0	100.0	100.0		
1905	100.0	100.0	100.0		
1906	100.0	100.0	100.0		
1907	100.0	100.0	100.0		
1908	100.0	100.0	100.0		
1909	100.0	100.0	100.0		
1910	100.0	100.0	100.0		
1911	100.0	100.0	100.0		
1912	100.0	100.0	100.0		
1913	100.0	100.0	100.0		
1914	100.0	100.0	100.0		
1915	100.0	100.0	100.0		

MINING, QUARRYING, AND LUMBERING.

1900	100.0	100.0	100.0		
1901	100.0	100.0	100.0		
1902	100.0	100.0	100.0		
1903	100.0	100.0	100.0		
1904	100.0	100.0	100.0		
1905	100.0	100.0	100.0		
1906	100.0	100.0	100.0		
1907	100.0	100.0	100.0		
1908	100.0	100.0	100.0		
1909	100.0	100.0	100.0		
1910	100.0	100.0	100.0		
1911	100.0	100.0	100.0		
1912	100.0	100.0	100.0		
1913	100.0	100.0	100.0		
1914	100.0	100.0	100.0		
1915	100.0	100.0	100.0		

PRINCIPAL

308

105

20,2070

1628

2500

1750

1589

2852

1851

1502

2310

2020

3063

1875

1517

2736

1847

3066

1771

1860

2188

1778

2018

1891

1615

1720

1649

1944

20,2070

1628

2500

1750

1589

2852

1851

1502

2310

2020

3063

1875

1517

2736

1847

3066

1771

1860

2188

1778

2018

1891

1615

1720

1649

1944

TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES.

BLACKSMITHING AND HORSESHOEING.

HORSESHOERS, FLOOR MEN, Male.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Albany, N. Y.	2	5	5	54.00	54.00	\$0.2778	\$0.2778
Atlanta, Ga.	2	4	5	60.00	60.00	.2313	.2483
Birmingham, Ala.	2	5	5	53.80	53.80	.3346	.3346
Boston, Mass.	4	13	13	53.00	53.00	.3121	.3121
Buffalo, N. Y.	2	3	5	53.67	53.80	.2795	.3067
Butte, Mont.	2	2	2	53.00	53.00	.4528	.4528
Charleston, S. C.	2	5	4	60.00	60.00	.1700	.1625
Chicago, Ill.	3	10	11	53.00	53.00	.3679	.3799
Cincinnati, Ohio	3	8	8	53.00	53.00	.3396	.3467
Cleveland, Ohio	3	4	4	54.75	54.75	.3022	.3022
Denver, Colo.	2	4	4	53.50	53.50	.3934	.3934
Des Moines, Iowa	2	3	3	54.00	54.00	.2778	.2778
Detroit, Mich.	3	4	4	53.75	53.75	.2791	.2791
Dubuque, Iowa	2	3	3	59.00	59.00	.2542	.2542
Duluth, Minn.	2	3	3	60.00	60.00	.2967	.2750
Fall River, Mass.	2	2	2	58.50	58.50	.2133	.2133
Indianapolis, Ind.	3	5	5	58.00	53.00	.2845	.3396
Jacksonville, Fla.	2	3	3	54.00	54.00	.2037	.2222
Louisville, Ky.	3	3	3	59.00	59.00	.2712	.2712
Lynn, Mass.	2	5	5	53.00	53.00	.2830	.2830
Manchester, N. H.	2	4	4	54.00	54.00	.2500	.2500
Memphis, Tenn.	2	7	7	53.00	53.00	.3396	.3396
Milwaukee, Wis.	3	3	3	57.33	57.33	.2621	.2621
Minneapolis, Minn.	4	7	7	59.00	59.00	.2542	.2712
Montgomery, Ala.	4	8	9	57.00	54.00	.1773	.2099
New Haven, Conn.	2	6	7	53.83	53.71	.2787	.2793
New Orleans, La.	3	5	5	53.00	53.00	.2830	.2830
New York, N. Y. (a)	6	18	18	54.67	53.00	.3457	.3868
Norfolk, Va.	2	6	6	53.00	53.00	.2594	.2641
Philadelphia, Pa.	4	13	13	52.08	52.08	.3171	.3171
Pittsburg and Allegheny, Pa.	3	8	10	54.25	55.00	.3521	.3426
Portland, Oreg.	2	3	3	53.00	53.00	.3585	.3585
Providence, R. I.	2	3	3	53.00	53.00	.2736	.2736
Richmond, Va.	2	6	4	59.33	59.25	.1913	.1776
Rochester, N. Y.	2	4	4	54.00	54.00	.2570	.2639
St. Louis, Mo.	3	39	42	53.00	53.00	.3367	.3367
St. Paul, Minn.	2	2	2	59.00	59.00	.2797	.2797
Salt Lake City, Utah	2	2	2	54.00	54.00	.2804	.2804
San Antonio, Tex.	3	4	4	60.00	60.00	.1563	.1563
San Francisco, Cal.	2	7	8	53.00	53.00	.4528	.4528
Seattle, Wash.	2	3	4	54.00	54.00	.3518	.3333
Syracuse, N. Y.	3	6	6	53.67	53.67	.2888	.3077
Tacoma, Wash.	2	2	3	54.00	54.00	.3472	.3426
Toledo, Ohio	2	5	5	53.00	53.00	.3358	.3358
Washington, D. C.	2	8	8	53.00	53.00	.3325	.3325
Wilmington, Del.	2	3	2	60.00	60.00	.2444	.2417
Worcester, Mass.	2	5	5	54.00	54.00	.2778	.2778

HORSESHOERS, FORGEMEN, Male.

Albany, N. Y.	4	4	4	54.00	54.00	\$0.3333	\$0.3333
Birmingham, Ala.	2	4	4	53.75	53.75	.3907	.3907
Buffalo, N. Y.	2	4	5	53.75	53.80	.3649	.3625
Butte, Mont.	2	2	2	53.00	53.00	.5094	.5094
Charleston, S. C.	2	3	3	60.00	60.00	.1889	.2000
Chicago, Ill.	3	7	6	53.00	53.00	.4245	.4324
Cincinnati, Ohio	3	8	8	53.00	53.00	.3962	.3962
Denver, Colo.	2	3	3	53.33	53.33	.3937	.3937
Detroit, Mich.	3	4	4	53.75	53.75	.3349	.3488
Dubuque, Iowa	2	2	2	59.00	59.00	.3051	.3051
Indianapolis, Ind.	3	4	4	58.00	53.00	.3168	.3467
Jacksonville, Fla.	2	3	3	54.00	54.00	.3148	.3333
Louisville, Ky.	2	3	3	59.00	59.00	.3079	.3079
Memphis, Tenn.	2	6	6	53.00	53.00	.3962	.3962
Milwaukee, Wis.	3	4	4	57.75	57.75	.2980	.2980
Minneapolis, Minn.	2	3	3	59.00	59.00	.3051	.3051
Montgomery, Ala.	4	6	5	58.00	54.00	.2685	.3000
New York, N. Y. (a)	3	8	8	53.00	53.00	.4316	.4316
Norfolk, Va.	2	6	8	53.00	53.00	.3050	.3137

a Greater New York.

TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

BLACKSMITHING AND HORSESHOEING—Concluded.

HORSESHOERS, FORGEMEN, Male—Concluded.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Philadelphia, Pa.	2	6	6	53.00	53.00	\$0.3396	\$0.3396
Portland, Oreg.	2	2	2	53.00	53.00	.3962	.3962
Richmond, Va.	2	3	3	59.67	59.67	.2192	.2303
Rochester, N. Y.	2	2	2	54.00	54.00	.2871	.3010
St. Louis, Mo.	3	15	16	53.00	53.00	.3887	.3891
Salt Lake City, Utah.	2	2	2	54.00	54.00	.3364	.3364
San Antonio, Tex.	3	4	4	60.00	60.00	.2125	.2125
San Francisco, Cal.	2	7	6	53.00	53.00	.4771	.4905
Syracuse, N. Y.	2	3	3	53.33	53.33	.3375	.3752
Terre Haute, Ind.	2	4	4	54.00	54.00	.3056	.3056
Toledo, Ohio.	2	5	5	53.00	53.00	.4075	.4075
Washington, D. C.	2	2	2	53.00	53.00	.3585	.3727
Wilmington, Del.	2	3	2	60.00	60.00	.2611	.2584
Worcester, Mass.	2	3	3	54.00	54.00	.3241	.3241

BUILDING TRADES.

BRICKLAYERS, Male.

Albany, N. Y.	2	17	15	48.00	48.00	\$0.5000	\$0.5000
Atlanta, Ga.	3	49	40	57.37	55.25	.4041	.4450
Augusta, Ga.	2	30	31	54.00	54.00	.3386	.3371
Baltimore, Md.	3	164	123	48.00	48.00	.6402	.6598
Birmingham, Ala.	3	11	19	48.00	48.00	.4909	.4974
Boston, Mass.	7	186	73	48.00	48.00	.5368	.5500
Buffalo, N. Y.	3	80	82	48.00	48.00	.5000	.5000
Butte, Mont.	2	16	16	46.50	46.50	.7500	.7500
Charleston, S. C.	3	21	25	54.00	54.00	.3434	.3422
Chicago, Ill.	4	354	345	45.13	45.16	.0000	.6296
Cincinnati, Ohio.	4	77	97	45.00	45.00	.0000	.6173
Cleveland, Ohio.	4	89	92	48.00	48.00	.5000	.5500
Dallas, Tex.	2	27	46	48.00	48.00	.6722	.7000
Denver, Colo.	2	16	16	44.00	44.00	.6406	.6406
Des Moines, Iowa.	3	58	40	48.00	48.00	.5625	.5656
Detroit, Mich.	3	86	56	48.00	48.00	.5000	.5500
Dubuque, Iowa.	2	21	12	54.00	54.00	.5000	.5000
Fall River, Mass.	2	15	18	48.00	48.00	.4063	.4500
Grand Rapids, Mich.	2	25	25	48.00	48.00	.5000	.5000
Hartford, Conn.	2	23	30	48.00	45.87	.5000	.5767
Houston, Tex.	2	10	18	44.00	44.00	.7500	.7500
Indianapolis, Ind.	3	53	62	47.60	46.77	.0000	.6000
Jacksonville, Fla.	3	38	37	48.39	48.00	.4967	.5000
Jersey City, N. J.	3	47	55	44.00	44.00	.5500	.5818
Kansas City, Mo.	2	27	26	48.00	48.00	.6250	.6250
Little Rock, Ark.	2	19	20	48.00	48.00	.5625	.6250
Los Angeles, Cal.	2	19	19	48.00	48.00	.6250	.7500
Louisville, Ky.	3	59	55	48.00	48.00	.0000	.6000
Lynn, Mass.	2	23	20	48.00	48.00	.5000	.5000
Manchester, N. H.	2	24	23	51.00	48.00	.4458	.4676
Memphis, Tenn.	2	22	29	44.00	44.00	.6250	.6875
Milwaukee, Wis.	2	34	38	48.00	48.00	.5118	.5500
Minneapolis, Minn.	5	51	106	49.76	49.08	.5363	.5387
Mobile, Ala.	3	18	20	48.00	48.00	.5403	.5513
Montgomery, Ala.	3	58	75	54.00	54.00	.4155	.4567
Nashville, Tenn.	2	47	50	53.57	53.56	.4723	.4980
Newark, N. J.	3	162	148	44.00	44.00	.5750	.6000
New Haven, Conn.	2	50	38	48.00	48.00	.4733	.5084
New Orleans, La.	3	58	53	48.00	48.00	.6250	.6250
New York, N. Y. (a)	9	473	364	44.00	44.00	.6500	.7000
Norfolk, Va.	2	27	27	48.00	48.00	.5718	.6319
Omaha, Neb.	2	16	42	44.00	44.00	.6250	.6250
Peoria, Ill.	3	56	59	48.00	48.00	.5558	.6250
Philadelphia, Pa.	7	340	391	44.00	44.00	.0000	.6000
Pittsburg and Allegheny, Pa.	2	36	40	48.00	48.00	.6000	.6500
Portland, Me.	2	45	41	48.00	48.00	.4383	.4384
Portland, Oreg.	2	28	33	48.00	48.00	.6875	.6951
Providence, R. I.	2	32	27	48.00	48.00	.4500	.4500
Racine, Wis.	2	31	34	48.00	48.00	.5210	.5743

(a) Greater New York.

TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

BUILDING TRADES—Continued.

BRICKLAYERS, Male—Concluded.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Richmond, Va.	4	69	87	48.00	48.00	\$0.5377	\$0.6075
Rochester, N. Y.	3	96	121	48.00	48.00	.5000	.5300
St. Louis, Mo.	3	71	79	44.00	44.00	.6577	.7016
St. Paul, Minn.	4	40	67	48.00	48.00	.5450	.5709
Salt Lake City, Utah.	3	46	49	44.00	44.00	.6440	.6926
San Antonio, Tex.	2	14	18	48.00	48.00	.6750	.7000
San Francisco, Cal.	4	111	97	44.00	44.00	.7500	.7500
Scranton, Pa.	3	53	52	48.00	48.00	.5000	.5000
Seattle, Wash.	2	11	11	44.00	44.00	.6875	.6875
Sioux Falls, S. Dak.	2	10	10	51.60	51.00	.5400	.5350
Syracuse, N. Y.	2	27	29	48.00	48.00	.5167	.5586
Tacoma, Wash.	2	15	10	44.00	44.00	.6875	.6875
Tampa, Fla.	2	20	17	48.00	48.00	.5975	.6250
Terre Haute, Ind.	4	67	81	48.00	48.00	.5366	.5500
Toledo, Ohio.	2	23	17	48.00	48.00	.5478	.5471
Topeka, Kans.	2	10	10	48.00	48.00	.6250	.6250
Trenton, N. J.	3	46	60	44.00	44.00	.5185	.5000
Washington, D. C.	3	64	98	48.00	48.00	.5625	.6250
Wheeling, W. Va.	2	34	32	48.00	48.00	.5625	.5625
Wilkes-Barre, Pa.	2	47	46	48.00	48.00	.5000	.5000
Wilmington, Del.	3	50	60	48.00	48.00	.5150	.5267
Worcester, Mass.	2	40	46	48.00	48.00	.5000	.5000

CARPENTERS, Male.

Albany, N. Y.	2	83	90	48.00	48.00	\$0.3065	\$0.3242
Atlanta, Ga.	3	68	81	50.79	55.68	.2431	.2429
Augusta, Ga.	3	46	46	54.26	54.26	.2201	.2387
Baltimore, Md.	4	106	98	48.00	48.00	.3738	.4133
Birmingham, Ala.	4	46	46	49.96	49.30	.3212	.3658
Boston, Mass.	5	316	177	48.09	48.14	.3742	.3832
Buffalo, N. Y.	3	190	203	48.00	48.00	.3750	.3750
Butte, Mont.	3	54	57	45.93	45.89	.6250	.6250
Charleston, S. C.	3	74	75	54.00	54.00	.2140	.2144
Chicago, Ill.	3	90	153	44.00	44.00	.5000	.5000
Cincinnati, Ohio.	4	191	215	48.00	48.00	.3794	.4039
Cleveland, Ohio.	3	72	83	48.00	48.00	.4000	.4216
Dallas, Tex.	2	31	30	48.00	48.00	.3750	.3750
Denver, Colo.	2	32	32	44.00	44.00	.4500	.4500
Des Moines, Iowa.	4	107	91	48.00	48.00	.3809	.3887
Detroit, Mich.	4	309	230	48.00	48.00	.3417	.3412
Dubuque, Iowa.	2	35	20	48.00	48.00	.3180	.3514
Duluth, Minn.	2	22	21	48.00	48.00	.3750	.3774
Fall River, Mass.	2	52	55	48.00	48.00	.3155	.3131
Grand Rapids, Mich.	2	41	46	54.00	54.00	.3268	.3196
Harrisburg, Pa.	2	30	28	54.00	54.00	.2695	.2758
Houston, Tex.	2	19	14	48.00	48.00	.5504	.5527
Indianapolis, Ind.	3	67	94	49.79	52.85	.3601	.3369
Jacksonville, Fla.	3	256	152	48.00	48.00	.3008	.2973
Jersey City, N. J.	2	35	50	44.00	44.00	.4100	.4688
Kansas City, Mo.	2	25	30	48.00	48.00	.4000	.4000
Little Rock, Ark.	2	45	42	50.67	51.14	.3185	.3168
Los Angeles, Cal.	2	79	51	48.00	48.00	.4375	.4375
Louisville, Ky.	3	80	94	54.00	54.00	.3000	.2970
Lynn, Mass.	2	37	39	48.00	48.00	.3750	.3750
Manchester, N. H.	2	57	76	54.00	54.00	.2683	.2495
Memphis, Tenn.	2	27	25	44.00	44.00	.4000	.4000
Milwaukee, Wis.	3	54	65	48.00	48.00	.3152	.3198
Minneapolis, Minn.	3	109	145	48.00	48.00	.3727	.3728
Mobile, Ala.	3	34	36	50.82	53.17	.2813	.2906
Montgomery, Ala.	4	110	146	57.22	58.32	.2286	.2445
Nashville, Tenn.	2	209	234	54.66	54.28	.2699	.2863
Newark, N. J.	2	331	264	44.00	44.00	.4099	.4209
New Haven, Conn.	2	40	48	48.00	48.00	.3750	.3750
New Orleans, La.	4	56	70	48.00	49.43	.3556	.3579
New York, N. Y. (a)	10	310	455	44.00	44.00	.5302	.5423
Norfolk, Va.	2	74	109	48.00	48.00	.3558	.3570
Omaha, Neb.	2	40	27	44.00	44.00	.3849	.3909
Peoria, Ill.	4	90	71	48.00	48.00	.4000	.4028

(a) Greater New York.

TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

BUILDING TRADES—Continued.

CARPENTERS, Male—Concluded.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages, per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Philadelphia, Pa.	6	244	260	46.36	46.37	\$0.4000	\$0.4000
Pittsburg and Allegheny, Pa.	3	182	93	48.00	48.00	.4382	.4375
Portland, Me.	2	103	90	54.00	54.00	.2659	.2695
Portland, Oreg.	3	124	72	48.00	48.00	.4226	.4167
Providence, R. I.	2	35	26	48.00	48.00	.3316	.3577
Racine, Wis.	4	89	99	48.00	53.45	.3435	.3813
Richmond, Va.	4	48	53	54.00	51.06	.2836	.3025
Rochester, N. Y.	2	22	32	48.00	48.00	.3449	.3750
St. Louis, Mo.	3	86	53	44.00	44.00	.5233	.5500
St. Paul, Minn.	3	90	163	48.00	48.00	.3694	.3732
Salt Lake City, Utah.	2	57	54	48.19	48.26	.4113	.4095
San Antonio, Tex.	2	31	33	48.00	48.00	.3145	.3012
San Francisco, Cal.	4	83	85	44.00	44.00	.5000	.5044
Scranton, Pa.	2	60	57	48.00	48.00	.3019	.3446
Sioux Falls, S. Dak.	2	29	28	60.00	60.00	.2716	.2598
Springfield, Ill.	2	46	43	48.00	48.00	.4000	.4000
Syracuse, N. Y.	2	24	19	50.50	49.89	.2917	.3461
Tacoma, Wash.	2	28	43	48.00	48.00	.4500	.4500
Tampa, Fla.	2	123	115	48.00	48.00	.3750	.3750
Terre Haute, Ind.	4	89	96	51.71	50.56	.3107	.3281
Toledo, Ohio.	2	57	52	59.16	58.62	.2877	.2957
Trenton, N. J.	2	32	37	44.00	44.00	.4100	.4100
Washington, D. C.	3	73	100	48.00	48.00	.4375	.5000
Wheeling, W. Va.	2	42	58	47.43	47.00	.3689	.3723
Wilkes-Barre, Pa.	3	83	73	48.00	48.00	.3348	.3106
Williamsport, Pa.	3	40	45	54.00	54.00	.2800	.2800
Wilmington, Del.	3	44	40	48.00	48.00	.3500	.3500
Worcester, Mass.	2	270	313	48.22	48.00	.3119	.3131

HOD CARRIERS, Male.

Albany, N. Y.	2	25	53	48.00	48.00	\$0.2320	\$0.2223
Atlanta, Ga.	2	9	11	59.11	58.09	.1026	.1085
Baltimore, Md.	4	104	72	48.00	48.00	.3212	.3229
Boston, Mass.	8	137	133	46.98	46.71	.3042	.3108
Buffalo, N. Y.	5	161	174	48.00	48.00	.1960	.1968
Butte, Mont.	3	28	28	46.29	46.29	.5826	.5826
Charleston, S. C.	2	18	19	54.00	54.00	.1111	.1111
Chicago, Ill.	5	297	296	44.00	44.00	.3190	.3308
Cincinnati, Ohio.	4	68	89	44.85	45.00	.3563	.3553
Cleveland, Ohio.	4	87	117	48.00	48.00	.2466	.2479
Dallas, Tex.	2	23	40	51.91	52.50	.2104	.2092
Davenport, Iowa.	2	15	14	48.00	48.00	.2583	.2589
Denver, Colo.	8	48	46	44.00	44.00	.3496	.3485
Des Moines, Iowa.	2	38	22	54.00	54.00	.2222	.2222
Detroit, Mich.	6	183	120	48.00	48.00	.2435	.2464
Dubuque, Iowa.	3	20	12	54.00	54.00	.2611	.2560
Evansville, Ind.	2	15	19	48.00	48.00	.2540	.2646
Fall River, Mass.	2	12	17	52.00	51.53	.1921	.1962
Grand Rapids, Mich.	3	55	45	53.56	53.47	.1939	.2008
Harrisburg, Pa.	3	12	14	52.17	50.71	.2573	.2603
Hartford, Conn.	2	26	27	48.00	45.78	.3000	.3472
Indianapolis, Ind.	4	72	70	47.00	47.04	.2772	.2848
Jacksonville, Fla.	3	68	60	48.22	48.00	.1867	.1875
Jersey City, N. J.	4	74	86	44.00	44.00	.3493	.3496
Kansas City, Mo.	3	34	36	48.00	46.33	.3000	.3000
Little Rock, Ark.	3	25	33	48.00	48.00	.2313	.2387
Los Angeles, Cal.	3	27	32	48.00	48.00	.3912	.3965
Louisville, Ky.	4	55	50	48.47	48.40	.2512	.2587
Lynn, Mass.	2	34	30	48.00	48.00	.3026	.3063
Manchester, N. H.	2	31	24	50.52	48.00	.2146	.2233
Memphis, Tenn.	4	37	48	45.08	44.67	.2554	.2839
Milwaukee, Wis.	4	42	46	48.00	48.00	.2690	.2821
Minneapolis, Minn.	7	67	137	54.09	53.30	.2322	.2421
Mobile, Ala.	2	16	18	54.00	53.33	.1667	.1690
Nashville, Tenn.	2	32	69	55.88	54.87	.1537	.1579
Newark, N. J.	3	193	169	44.00	44.00	.3000	.3200
New Haven, Conn.	2	65	71	48.00	48.00	.2514	.2751
New Orleans, La.	3	36	41	53.00	52.39	.1794	.1884
New York, N. Y. (a).	11	709	582	44.00	44.00	.3591	.3627

* Greater New York.

TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

BUILDING TRADES—Continued.

HOD CARRIERS, Male—Concluded.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Norfolk, Va.	5	34	36	48.00	48.00	\$0.2362	\$0.2500
Oakland, Cal.	2	13	12	44.00	44.00	.5000	.5000
Omaha, Nebr.	2	13	13	44.00	44.00	.2904	.2942
Peoria, Ill.	4	64	79	48.00	48.00	.2795	.2906
Philadelphia, Pa.	9	111	126	44.00	44.00	.3133	.3123
Pittsburg and Allegheny, Pa.	2	22	27	48.00	48.00	.3227	.3111
Portland, Me.	3	60	66	48.70	49.00	.2520	.2471
Portland, Oreg.	5	31	33	48.19	48.18	.3815	.3830
Providence, R. I.	3	36	34	48.00	48.00	.2199	.2206
Racine, Wis.	2	40	51	48.00	48.00	.2625	.2711
Reading, Pa.	2	17	17	51.24	51.24	.2643	.2643
Richmond, Va.	6	107	137	49.40	49.14	.1845	.2004
Rochester, N. Y.	2	134	163	48.00	48.00	.2390	.2390
St. Louis, Mo.	8	124	152	44.00	44.00	.4658	.4291
Salt Lake City, Utah.	5	41	41	44.88	44.88	.3788	.3918
San Francisco, Cal.	4	111	84	44.00	44.00	.4375	.4375
San Antonio, Tex.	2	17	22	48.00	48.00	.1967	.1989
Scranton, Pa.	3	64	61	48.00	48.00	.2073	.2090
Seattle, Wash.	3	20	29	44.00	44.00	.3719	.3556
Sioux Falls, S. Dak.	3	19	21	56.37	56.57	.2267	.2283
Springfield, Ill.	2	13	14	48.00	48.00	.2740	.2768
Syracuse, N. Y.	2	44	32	54.00	51.58	.1969	.2125
Tacoma, Wash.	2	6	7	44.67	45.71	.3438	.3929
Tampa, Fla.	2	33	39	48.00	48.00	.1858	.1863
Terre Haute, Ind.	5	55	63	48.00	48.00	.2905	.2902
Toledo, Ohio.	2	37	33	51.24	51.27	.2719	.2745
Topeka, Kans.	2	10	12	48.00	48.00	.2406	.2396
Trenton, N. J.	2	17	33	44.00	44.00	.3500	.3500
Washington, D. C.	3	43	59	48.00	48.00	.2701	.2813
Wheeling, W. Va.	3	40	36	48.00	48.00	.2925	.2944
Wilkes-Barre, Pa.	3	44	43	48.00	48.00	.2749	.2750
Williamsport, Pa.	2	7	7	52.29	52.29	.2589	.2589
Wilmington, Del.	3	26	27	48.00	48.00	.2770	.2836
Worcester, Mass.	2	13	8	51.69	49.50	.2316	.2735

LABORERS, Male.

Albany, N. Y.	2	19	31	49.74	53.32	\$0.1793	\$0.1631
Atlanta, Ga.	4	431	412	59.25	58.77	.1031	.1202
Augusta, Ga.	2	122	126	54.00	54.00	.0808	.1015
Baltimore, Md.	7	255	334	57.27	56.91	.1750	.1752
Birmingham, Ala.	4	94	139	58.47	56.81	.1250	.1324
Boston, Mass.	5	382	383	56.28	54.63	.1663	.1745
Buffalo, N. Y.	2	172	150	52.43	52.04	.1772	.1802
Butte, Mont.	3	14	14	46.00	46.00	.3839	.3839
Charleston, S. C.	2	25	22	54.00	54.00	.1167	.1162
Chicago, Ill.	4	817	780	46.40	46.59	.2924	.2914
Cincinnati, Ohio.	5	104	159	54.92	56.15	.1861	.1865
Cleveland, Ohio.	4	67	84	52.84	52.43	.2123	.2130
Dallas, Tex.	2	11	17	48.00	48.00	.2188	.2188
Denver, Colo.	2	18	16	51.78	51.50	.2168	.2370
Des Moines, Iowa.	4	183	161	50.13	49.86	.2303	.2327
Detroit, Mich.	4	158	180	56.96	57.93	.1800	.1796
Dubuque, Iowa.	2	70	65	59.24	59.23	.2065	.2069
Fall River, Mass.	2	39	41	54.00	54.00	.1706	.1741
Grand Rapids, Mich.	2	15	33	56.80	58.55	.1907	.1848
Indianapolis, Ind.	3	156	116	59.92	59.86	.1750	.1750
Jacksonville, Fla.	4	157	461	55.80	58.41	.1355	.1382
Jersey City, N. J.	2	79	100	59.00	57.75	.1780	.1867
Kansas City, Mo.	2	27	31	48.00	48.00	.2188	.2188
Little Rock, Ark.	2	48	55	59.50	59.45	.1972	.1742
Los Angeles, Cal.	3	27	26	48.00	48.00	.2488	.2560
Louisville, Ky.	2	27	38	55.85	55.05	.1905	.1947
Lynn, Mass.	2	41	40	54.00	52.50	.1982	.2104
Manchester, N. H.	2	41	45	58.10	54.00	.1553	.1667
Memphis, Tenn.	4	56	40	55.93	55.35	.1616	.1731
Milwaukee, Wis.	2	52	63	60.00	60.00	.1738	.1872
Minneapolis, Minn.	3	57	39	54.74	55.85	.1993	.1923
Montgomery, Ala.	4	100	134	56.70	57.00	.1054	.1183
New Haven, Conn.	2	40	55	48.00	48.00	.2656	.2768
New Orleans, La.	4	45	52	50.40	49.38	.2056	.2056

TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

BUILDING TRADES—Continued.

LABORERS, Male—Concluded.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
New York, N. Y. (a).....	4	90	130	53.71	50.46	\$0.1876	\$0.2070
Norfolk, Va.....	2	22	50	51.82	51.60	.1452	.1628
Omaha, Nebr.....	2	42	65	47.05	47.63	.2500	.2500
Peoria, Ill.....	3	49	51	57.06	55.29	.1750	.1750
Philadelphia, Pa.....	4	439	473	57.56	56.45	.1562	.1589
Portland, Oreg.....	2	46	28	52.96	52.71	.2638	.2852
Providence, R. I.....	2	96	105	55.00	53.14	.1828	.1851
Richmond, Va.....	2	205	205	56.71	56.71	.1494	.1502
Rochester, N. Y.....	2	54	42	48.00	48.00	.2307	.2310
St. Paul, Minn.....	5	112	232	58.29	59.56	.1972	.2020
Salt Lake City, Utah.....	2	23	20	44.65	44.30	.2978	.3063
San Antonio, Tex.....	2	18	22	48.00	48.00	.1875	.1875
Saranton, Pa.....	4	75	94	59.20	59.55	.1522	.1517
Seattle, Wash.....	3	46	18	46.96	46.89	.2726	.2726
Sioux Falls, S. Dak.....	2	19	31	60.00	60.00	.1868	.1847
Tacoma, Wash.....	3	14	21	48.00	48.00	.2991	.3066
Terre Haute, Ind.....	3	38	40	54.00	52.50	.1684	.1771
Toledo, Ohio.....	2	107	66	59.89	59.64	.1793	.1860
Topeka, Kans.....	2	9	10	48.00	48.00	.1989	.2188
Trenton, N. J.....	3	27	47	58.89	57.19	.1531	.1578
Washington, D. C.....	4	55	81	48.00	48.00	.2068	.2018
Wheeling, W. Va.....	2	32	28	53.88	53.79	.1913	.1891
Wilkes-Barre, Pa.....	4	70	68	57.00	56.38	.1584	.1615
Williamsport, Pa.....	3	15	15	52.80	52.80	.1720	.1720
Wilmington, Del.....	3	30	41	56.00	53.27	.1634	.1649
Worcester, Mass.....	2	115	130	54.00	54.00	.1944	.1944

PAINTERS, Male.

Albany, N. Y.....	2	57	53	48.00	48.00	\$0.3098	\$0.3094
Atlanta, Ga.....	2	23	20	54.52	54.75	.2422	.2489
Baltimore, Md.....	3	128	137	48.00	48.00	.3125	.3750
Birmingham, Ala.....	2	15	19	48.00	48.00	.3533	.3645
Boston, Mass.....	8	190	194	48.00	48.00	.3503	.3515
Buffalo, N. Y.....	4	162	152	48.00	48.00	.3750	.3750
Butte, Mont.....	2	24	22	48.00	48.00	.5625	.5625
Charleston, S. C.....	4	38	36	54.00	54.00	.1977	.1977
Chicago, Ill.....	4	257	226	44.00	44.00	.4500	.4500
Cincinnati, Ohio.....	4	86	83	48.00	48.00	.3750	.3750
Cleveland, Ohio.....	3	78	96	48.00	48.00	.3750	.3846
Dallas, Tex.....	2	26	31	48.00	48.00	.3387	.3500
Denver, Colo.....	3	33	23	44.00	44.00	.4374	.4374
Des Moines, Iowa.....	2	55	69	48.00	48.00	.3750	.3750
Detroit, Mich.....	4	116	125	48.00	48.00	.3271	.3304
Dubuque, Iowa.....	2	34	32	48.00	48.00	.3386	.3414
Duluth, Minn.....	2	45	40	48.00	48.00	.3511	.3750
Fall River, Mass.....	2	28	27	48.00	48.00	.3058	.3044
Grand Rapids, Mich.....	2	22	23	54.00	54.00	.2475	.2464
Indianapolis, Ind.....	4	87	98	48.00	48.00	.3500	.3500
Jacksonville, Fla.....	6	102	84	48.00	48.00	.3189	.3181
Jersey City, N. J.....	2	47	50	44.00	44.00	.3921	.3918
Kansas City, Mo.....	2	39	36	48.00	48.00	.3833	.3861
Little Rock, Ark.....	2	19	20	48.00	48.00	.3125	.3125
Los Angeles, Cal.....	4	49	54	48.00	48.00	.4203	.4103
Louisville, Ky.....	3	68	72	54.00	54.00	.2788	.3034
Lynn, Mass.....	2	47	52	48.00	48.00	.3500	.3500
Manchester, N. H.....	2	39	38	54.00	54.00	.2279	.2266
Memphis, Tenn.....	2	15	15	48.00	48.00	.3750	.3833
Milwaukee, Wis.....	3	106	103	48.00	48.00	.2983	.2985
Minneapolis, Minn.....	4	98	116	48.00	48.00	.3765	.3765
Montgomery, Ala.....	3	20	20	54.00	54.00	.2654	.2615
Nashville, Tenn.....	2	21	41	58.29	54.00	.2143	.2500
Newark, N. J.....	3	81	85	48.00	48.00	.3617	.3790
New Haven, Conn.....	2	25	24	48.00	48.00	.3125	.3125
New Orleans, La.....	4	87	95	48.00	48.00	.3125	.3125
New York, N. Y. (a).....	7	204	198	44.13	44.14	.4553	.4599
Norfolk, Va.....	3	21	21	54.00	51.43	.2778	.3087
Oakland, Cal.....	2	55	58	45.45	45.24	.4375	.4375
Omaha, Nebr.....	2	19	22	46.53	47.64	.3908	.3955

a Greater New York.

TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

BUILDING TRADES—Continued.

PAINTERS, Male—Concluded.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Peoria, Ill.	2	33	36	48.00	48.00	\$0.3536	\$0.3533
Philadelphia, Pa.	5	314	265	48.00	48.00	.3750	.3750
Pittsburg and Allegheny, Pa.	2	34	38	48.00	48.00	.4250	.4250
Portland, Me.	2	35	44	54.00	54.00	.2452	.2475
Portland, Oreg.	2	33	42	48.00	48.00	.3750	.3747
Providence, R. I.	3	89	82	46.52	46.39	.3216	.3236
Racine, Wis.	2	21	20	48.00	48.00	.2902	.3125
Reading, Pa.	2	22	18	54.00	54.00	.2500	.2500
Richmond, Va.	2	30	36	54.00	54.00	.2509	.2534
Rochester, N. Y.	2	36	45	48.00	48.00	.3011	.3292
St. Louis, Mo.	3	78	83	44.00	44.00	.4500	.4554
St. Paul, Minn.	2	47	44	48.00	48.00	.3468	.3636
Salt Lake City, Utah.	2	21	21	48.00	48.00	.4375	.4375
San Antonio, Tex.	2	32	30	48.00	48.00	.3105	.3260
San Francisco, Cal.	4	94	95	47.79	47.75	.4375	.4375
Seranton, Pa.	2	14	14	48.00	48.00	.3304	.3304
Seattle, Wash.	4	40	28	48.00	48.00	.4375	.4420
Sioux Falls, S. Dak.	2	17	19	58.76	58.53	.3093	.3151
Syracuse, N. Y.	2	23	20	48.00	48.00	.3438	.3750
Tacoma, Wash.	2	21	25	48.00	48.00	.4420	.4400
Terre Haute, Ind.	6	50	62	53.28	53.03	.3020	.3102
Toledo, Ohio.	2	11	22	48.00	48.00	.3040	.3040
Topeka, Kans.	2	20	22	48.00	48.00	.3500	.3409
Trenton, N. J.	2	36	40	44.00	44.00	.3785	.3781
Washington, D. C.	3	64	67	48.00	48.00	.4000	.4347
Wheeling, W. Va.	2	52	54	48.00	48.00	.4000	.4000
Wilkes-Barre, Pa.	3	32	37	48.00	48.00	.3070	.3039
Wilmington, Del.	3	73	64	48.00	48.00	.3142	.3531
Worcester, Mass.	2	66	68	48.00	48.00	.3062	.3100

PLASTERERS, Male.

Albany, N. Y.	2	9	9	48.00	48.00	\$0.4667	\$0.5000
Atlanta, Ga.	2	33	31	54.00	54.00	.3495	.4000
Baltimore, Md.	3	41	76	48.00	48.00	.5442	.5987
Birmingham, Ala.	4	11	11	48.00	48.00	.4636	.4841
Boston, Mass.	2	91	94	44.00	44.00	.5000	.5019
Buffalo, N. Y.	3	14	17	48.00	48.00	.5000	.5000
Butte, Mont.	3	9	9	44.89	44.89	.8750	.8740
Charleston, S. C.	3	16	12	54.00	54.00	.3604	.3685
Chicago, Ill.	3	117	124	44.00	44.00	.5625	.5847
Cincinnati, Ohio.	3	86	57	44.50	44.51	.6250	.6250
Cleveland, Ohio.	2	40	33	44.00	44.00	.5000	.5625
Dallas, Tex.	2	7	13	48.00	48.00	.6250	.6250
Denver, Colo.	2	22	20	44.00	44.00	.6250	.6250
Des Moines, Iowa.	2	23	22	48.00	48.00	.5000	.5000
Detroit, Mich.	3	50	41	48.00	46.54	.5000	.5082
Dubuque, Iowa.	2	13	15	48.00	48.00	.5000	.5000
Fall River, Mass.	2	8	6	48.00	48.00	.4063	.4500
Grand Rapids, Mich.	2	11	8	48.00	48.00	.5000	.5000
Indianapolis, Ind.	2	42	30	45.93	46.27	.5695	.5000
Jacksonville, Fla.	3	20	22	49.00	48.00	.4824	.5000
Jersey City, N. J.	2	25	21	44.00	44.00	.5663	.5670
Kansas City, Mo.	2	16	20	48.00	45.00	.6250	.6250
Little Rock, Ark.	2	8	14	48.00	48.00	.5000	.6036
Los Angeles, Cal.	2	12	16	48.00	48.00	.6250	.6250
Louisville, Ky.	2	17	18	44.00	44.00	.5500	.6000
Lynn, Mass.	2	11	14	48.00	48.00	.5000	.5000
Manchester, N. H.	2	9	8	52.00	51.75	.3719	.3698
Memphis, Tenn.	2	14	18	46.86	45.78	.6250	.6250
Milwaukee, Wis.	2	18	21	48.00	48.00	.4500	.4500
Minneapolis, Minn.	5	25	40	51.00	50.40	.5400	.5344
Montgomery, Ala.	3	16	26	54.00	54.00	.3781	.4216
Nashville, Tenn.	2	18	21	57.00	56.86	.2986	.3000
New Orleans, La.	2	12	18	48.00	48.00	.4000	.4500
New York, N. Y. (a)	4	192	293	44.00	44.00	.6803	.6875
Norfolk, Va.	3	15	16	48.00	48.00	.5375	.5645
Omaha, Nebr.	2	9	12	44.00	44.00	.5500	.5500
Peoria, Ill.	2	25	32	48.00	48.00	.5625	.5625

(a) Greater New York.

TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

BUILDING TRADES—Continued.

PLASTERERS, Male—Concluded.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Philadelphia, Pa.	3	98	150	44.00	44.00	\$0.5000	\$0.5625
Pittsburg and Allegheny, Pa.	26	29	29	48.00	48.00	.5250	.5250
Portland, Me.	29	25	52.14	48.00	48.00	.4040	.4375
Portland, Oreg.	12	13	48.00	48.00	48.00	.6250	.6250
Providence, R. I.	13	14	44.31	44.29	51.45	.5145	.5145
Richmond, Va.	39	36	54.00	54.00	.2767	.2767	.2767
St. Louis, Mo.	42	46	44.00	44.00	.7500	.7500	.7500
St. Paul, Minn.	15	15	48.00	48.00	.5538	.5400	.5400
Salt Lake City, Utah.	14	14	48.00	48.00	.6518	.6518	.6518
San Antonio, Tex.	10	11	48.00	48.00	.6250	.6250	.6250
San Francisco, Cal.	35	26	44.00	44.00	.7500	.7500	.7500
Scranton, Pa.	37	25	48.00	48.00	.4000	.4240	.4240
Seattle, Wash.	18	35	44.00	44.00	.6875	.6875	.6875
Sioux Falls, S. Dak.	11	12	60.00	60.00	.3909	.3917	.3917
Syracuse, N. Y.	19	8	48.00	48.00	.5000	.5000	.5000
Tacoma, Wash.	11	15	48.00	48.00	.6250	.6250	.6250
Terre Haute, Ind.	17	22	50.12	50.18	.4824	.4818	.4818
Toledo, Ohio.	21	30	48.00	48.00	.5000	.5000	.5000
Topeka, Kans.	11	10	48.00	48.00	.5000	.5000	.5000
Trenton, N. J.	27	20	44.00	44.00	.5074	.5000	.5000
Washington, D. C.	73	78	48.00	48.00	.5625	.5625	.5625
Wheeling, W. Va.	10	12	47.50	47.42	.4422	.4429	.4429
Wilkes-Barre, Pa.	23	26	48.00	48.00	.5815	.5255	.5255
Wilmington, Del.	22	23	48.00	48.00	.4000	.4500	.4500
Worcester, Mass.	19	19	48.00	48.00	.4605	.5000	.5000

PLUMBERS, Male.

Albany, N. Y.	2	23	15	48.00	48.00	\$0.4375	\$0.4375
Atlanta, Ga.	2	23	19	53.13	53.11	.3967	.3924
Baltimore, Md.	3	67	71	48.00	48.00	.4039	.4080
Birmingham, Ala.	3	33	27	47.76	47.74	.5026	.5036
Boston, Mass.	31	37	31	48.00	48.00	.4561	.4563
Buffalo, N. Y.	2	12	10	48.00	48.00	.4375	.4375
Butte, Mont.	2	13	13	44.00	44.00	.8125	.8125
Charleston, S. C.	3	17	17	54.00	54.00	.3396	.3333
Chicago, Ill.	4	117	141	44.00	44.00	.5625	.5625
Cincinnati, Ohio.	4	27	32	48.00	48.00	.5000	.5000
Cleveland, Ohio.	3	34	54	48.00	48.00	.5000	.5000
Dallas, Tex.	3	15	21	48.00	48.00	.5417	.5417
Davenport, Iowa.	3	13	16	48.00	48.00	.4399	.4258
Denver, Colo.	2	19	16	44.00	44.00	.5313	.5313
Des Moines, Iowa.	2	15	16	48.00	48.00	.4375	.4375
Detroit, Mich.	4	26	29	48.00	48.00	.4243	.4377
Dubuque, Iowa.	2	10	10	48.00	48.00	.4375	.4375
Duluth, Minn.	3	17	19	46.12	46.00	.5559	.5553
Fall River, Mass.	2	13	13	54.00	54.00	.3611	.3611
Grand Rapids, Mich.	2	14	20	48.00	48.00	.3985	.4300
Indianapolis, Ind.	3	16	17	47.00	47.00	.4750	.4750
Jacksonville, Fla.	2	7	9	48.00	48.00	.5000	.5000
Jersey City, N. J.	4	15	15	44.00	44.00	.4375	.4833
Kansas City, Mo.	2	18	18	48.00	48.00	.5625	.5625
Little Rock, Ark.	2	13	13	48.00	48.00	.5000	.5048
Los Angeles, Cal.	2	21	22	48.00	48.00	.5625	.5625
Louisville, Ky.	3	16	17	48.00	48.00	.4375	.4375
Lynn, Mass.	3	12	12	48.00	48.00	.4375	.4375
Manchester, N. H.	2	9	10	52.67	48.00	.2923	.3181
Memphis, Tenn.	2	28	21	48.00	48.00	.4509	.4375
Milwaukee, Wis.	4	39	40	45.74	46.00	.4375	.5000
Minneapolis, Minn.	3	21	28	48.00	48.00	.5000	.4665
Mobile, Ala.	2	13	15	48.00	48.00	.4808	.5000
Montgomery, Ala.	2	14	17	40.29	40.06	.4881	.4602
Nashville, Tenn.	3	13	15	54.92	50.07	.3487	.4045
Newark, N. J.	2	13	17	48.00	48.00	.4375	.5000
New Haven, Conn.	2	8	8	48.00	48.00	.3828	.3828
New Orleans, La.	6	42	46	48.00	48.00	.4896	.5000
New York, N. Y. (a).	11	170	198	44.12	44.12	.5917	.5917
Norfolk, Va.	3	18	22	48.00	48.00	.3802	.4546
Omaha, Nebr.	2	13	14	48.00	48.00	.5000	.5000

(a) Greater New York.

TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

BUILDING TRADES—Concluded.

PLUMBERS, Male—Concluded.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Peoria, Ill.	2	8	10	48.00	48.00	\$0.4813	\$0.4813
Philadelphia, Pa.	6	68	84	47.76	47.71	.4375	.4375
Pittsburg and Allegheny, Pa.	3	19	20	48.00	48.00	.4967	.5000
Portland, Me.	2	7	7	54.00	54.00	.3016	.3016
Portland, Oreg.	2	14	10	48.00	48.00	.5625	.5625
Providence, R. I.	2	25	25	48.00	46.56	.4404	.4375
Racine, Wis.	2	7	7	44.00	44.00	.4375	.4375
Reading, Pa.	2	18	20	54.00	54.00	.2974	.2964
Richmond, Va.	3	12	13	48.00	48.00	.3750	.3630
Rochester, N. Y.	2	32	29	48.00	48.00	.3503	.3492
St. Louis, Mo.	3	27	27	44.00	44.00	.6250	.6250
St. Paul, Minn.	2	11	12	48.00	48.00	.5227	.5208
Salt Lake City, Utah.	2	10	10	44.00	44.00	.5753	.5753
San Antonio, Tex.	2	8	7	48.00	48.00	.4609	.4664
San Francisco, Cal.	5	63	55	47.52	47.53	.6316	.6316
Saranton, Pa.	2	12	12	48.00	48.00	.4037	.4037
Seattle, Wash.	3	27	23	44.00	44.00	.6250	.6250
Sioux Falls, S. Dak.	2	11	11	60.00	60.00	.3469	.3364
Springfield, Ill.	2	10	7	48.00	48.00	.4688	.4688
Syracuse, N. Y.	2	15	17	48.00	48.00	.3750	.4375
Tacoma, Wash.	2	10	10	44.00	44.00	.5625	.5625
Tampa, Fla.	3	13	13	48.00	48.00	.5000	.5000
Terre Haute, Ind.	2	12	12	53.50	53.50	.4000	.4000
Toledo, Ohio.	2	9	9	44.00	44.00	.4479	.4688
Topeka, Kans.	2	11	13	51.27	51.69	.3758	.3727
Trenton, N. J.	2	11	11	44.00	44.00	.4096	.4096
Troy, N. Y.	2	11	9	48.00	48.00	.3750	.3750
Washington, D. C.	2	37	38	48.00	48.00	.5000	.5000
Wheeling, W. Va.	2	20	24	48.00	48.00	.4375	.4688
Wilkes-Barre, Pa.	3	11	12	48.00	48.00	.3381	.3308
Wilmington, Del.	3	18	20	48.00	48.00	.3641	.3714
Worcester, Mass.	2	15	17	48.00	48.00	.4375	.4688

CLOTHING, FACTORY PRODUCT.

CUTTERS, HAND, Male.

Baltimore, Md.	2	78	83	53.37	53.57	\$0.3035	\$0.3026
Boston, Mass.	2	22	24	52.50	52.88	.3161	.2800
Buffalo, N. Y.	2	25	21	51.00	51.00	.3891	.3603
Chicago, Ill.	2	67	76	48.00	48.00	.4640	.4509
Cincinnati, Ohio.	2	32	33	48.00	48.00	.3854	.3864
Minneapolis, Minn.	2	6	11	57.17	57.09	.3330	.3162
New York, N. Y. (a)	4	169	169	50.20	50.34	.4016	.3998
Philadelphia, Pa.	2	109	117	51.63	54.00	.3678	.3454
Rochester, N. Y.	2	119	137	54.00	54.00	.2868	.2857
St. Louis, Mo.	2	25	24	48.00	48.00	.4250	.4254

CUTTERS, MACHINE, Male.

Baltimore, Md.	2	46	48	53.91	53.92	\$0.3590	\$0.3579
Buffalo, N. Y.	2	3	2	51.00	51.00	.4153	.4314
Chicago, Ill.	3	139	139	48.00	48.00	.4667	.4344
Cincinnati, Ohio.	2	2	2	48.00	48.00	.4167	.4167
New York, N. Y. (a)	3	8	8	48.00	48.00	.4022	.4922

FINISHERS, Female.

Baltimore, Md.	3	198	219	58.15	57.72	\$0.0973	\$0.1007
Chicago, Ill.	2	99	106	54.00	54.00	.1481	.1545
Cincinnati, Ohio.	2	108	115	54.00	54.00	.0674	.1020
Minneapolis, Minn.	2	10	10	54.70	55.20	.1091	.1149
New York, N. Y. (a)	5	116	135	57.31	57.08	.0940	.0997
Rochester, N. Y.	2	60	76	54.00	54.00	.1429	.1526

(a) Greater New York.

TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

CLOTHING, FACTORY PRODUCT—Concluded.

SEWING-MACHINE OPERATORS, Male.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Baltimore, Md.	3	128	136	58.78	58.86	\$0.2572	\$0.2373
Boston, Mass.	2	27	30	48.44	50.58	.3062	.2648
Chicago, Ill.	2	30	47	54.00	54.00	.2915	.2897
New York, N. Y. (a)	5	229	273	57.05	56.99	.2011	.2020
Philadelphia, Pa.	2	195	214	54.00	54.00	.1893	.2047
Rochester, N. Y.	2	22	26	54.00	54.00	.2134	.2269

SEWING-MACHINE OPERATORS, Female.

Baltimore, Md.	2	75	75	59.57	59.25	\$0.1222	\$0.1136
Boston, Mass.	2	66	58	54.55	55.10	.1703	.1716
Buffalo, N. Y.	2	19	28	53.37	53.46	.0915	.1013
Chicago, Ill.	3	115	118	54.00	54.00	.2032	.1953
Cincinnati, Ohio.	2	43	44	54.00	54.00	.1404	.1482
Minneapolis, Minn.	2	128	200	55.68	54.38	.1291	.1470
New York, N. Y. (a)	2	48	50	54.38	54.46	.1284	.1210
Philadelphia, Pa.	2	219	235	54.00	54.00	.1054	.1193
Rochester, N. Y.	2	86	103	54.00	54.00	.1507	.1604

FOUNDRY AND MACHINE SHOP.

BLACKSMITHS, Male.

Atlanta, Ga.	3	3	3	59.67	59.67	\$0.3404	\$0.3184
Baltimore, Md.	3	27	19	54.00	54.00	.2634	.2676
Boston, Mass.	5	9	9	55.11	55.11	.2908	.2821
Buffalo, N. Y.	2	8	6	58.50	58.00	.2653	.2745
Butte, Mont.	2	3	3	54.00	54.00	.5000	.5000
Charleston, S. C.	2	3	4	56.00	54.00	.3204	.3334
Chicago, Ill.	5	25	29	54.00	54.00	.3343	.3332
Cincinnati, Ohio.	4	6	5	54.83	54.80	.2883	.2895
Cleveland, Ohio.	3	17	25	55.59	55.40	.3132	.3116
Dallas, Tex.	2	4	4	54.00	54.00	.3194	.3194
Denver, Colo.	2	6	11	53.83	56.09	.3500	.3296
Des Moines, Iowa.	2	5	5	54.00	54.00	.3667	.3667
Detroit, Mich.	3	14	17	59.50	59.41	.2302	.2315
Dubuque, Iowa.	3	3	3	59.67	59.67	.2472	.2528
Evansville, Ind.	3	25	25	59.96	59.96	.2083	.2850
Grand Rapids, Mich.	2	5	5	59.00	59.00	.2584	.2635
Hoboken, N. J.	2	15	17	53.40	53.35	.3512	.3558
Indianapolis, Ind.	3	20	18	51.15	51.83	.2660	.2614
Jersey City, N. J.	2	9	9	53.00	53.00	.3809	.4025
Los Angeles, Cal.	2	8	7	54.00	56.57	.3625	.3714
Louisville, Ky.	4	7	9	59.57	59.67	.2692	.2671
Manchester, N. H.	2	19	17	60.00	60.00	.2208	.2294
Memphis, Tenn.	3	6	6	56.00	56.00	.3111	.3156
Milwaukee, Wis.	6	31	37	55.32	55.27	.2961	.3085
Minneapolis, Minn.	2	8	11	55.00	55.00	.2818	.2804
Mobile, Ala.	2	6	6	54.80	54.00	.3333	.3704
Nashville, Tenn.	2	2	2	57.00	54.00	.3028	.3195
New Orleans, La.	4	9	13	54.00	54.00	.3468	.3575
New York, N. Y. (a)	7	31	30	53.68	53.70	.3891	.3887
Omaha, Neb.	2	3	3	60.00	60.00	.2900	.3067
Philadelphia, Pa.	6	18	16	56.11	56.19	.2965	.3235
Pittsburg and Allegheny, Pa.	5	54	63	59.33	57.81	.2765	.2768
Portland, Me.	2	22	24	59.00	59.00	.2491	.2469
Portland, Oreg.	2	4	4	54.00	54.00	.3759	.3958
Providence, R. I.	5	14	17	57.43	57.47	.2896	.2948
Richmond, Va.	3	13	12	57.08	58.25	.2621	.2611
Rochester, N. Y.	2	2	2	52.00	54.00	.3050	.3195
St. Louis, Mo.	3	8	9	54.00	54.00	.3101	.3219
St. Paul, Minn.	3	7	9	59.00	59.00	.2782	.2814
Salt Lake City, Utah.	2	4	5	54.00	54.00	.4194	.3944
San Francisco, Cal.	4	25	16	54.00	54.00	.3818	.4035
Scranton, Pa.	2	11	9	55.00	55.00	.2614	.2717

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TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

FOUNDRY AND MACHINE SHOP—Continued.

BLACKSMITHS, Male—Concluded.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Seattle, Wash.	2	6	9	54.00	54.00	\$0.3724	\$0.3623
Terre Haute, Ind.	2	6	5	54.00	54.00	.2663	.2795
Toledo, Ohio.	2	4	6	54.00	59.00	.3028	.2908
Troy, N. Y.	3	3	3	59.33	59.33	.2718	.2768
Washington, D. C.	2	6	6	51.33	51.33	.3033	.3033
Wilkes-Barre, Pa.	2	14	16	60.00	60.00	.2886	.2878
Williamsport, Pa.	2	4	4	56.00	56.00	.2631	.2631
Wilmington, Del.	2	4	4	54.00	54.00	.2575	.2525
Worcester, Mass.	2	4	4	57.50	57.50	.3288	.3300

BOILER MAKERS, Male.

Baltimore, Md.	2	30	27	54.00	51.33	\$0.2331	\$0.2824
Boston, Mass.	2	35	32	54.00	54.00	.3001	.3019
Bridgeport, Conn.	2	18	19	59.00	59.00	.2627	.2676
Charleston, S. C.	2	6	6	56.00	54.00	.3171	.3069
Chicago, Ill.	3	44	51	54.00	54.00	.3477	.3485
Denver, Colo.	2	4	10	54.00	55.80	.3188	.3055
Fort Wayne, Ind.	2	25	21	56.00	56.81	.2590	.2560
Grand Rapids, Mich.	2	12	12	59.00	59.00	.2542	.2500
Indianapolis, Ind.	2	43	33	60.07	50.12	.2428	.2676
Jersey City, N. J.	2	40	38	63.00	63.00	.3385	.3244
Los Angeles, Cal.	2	6	7	58.00	54.00	.3250	.3371
Louisville, Ky.	3	32	37	59.94	59.97	.2503	.2493
Mobile, Ala.	2	20	18	54.00	54.00	.3611	.3596
New Orleans, La.	2	14	14	54.00	54.00	.3929	.3929
New York, N. Y. (e).	5	75	83	53.32	53.29	.3393	.3435
Philadelphia, Pa.	3	61	51	56.18	56.20	.2544	.2580
Pittsburg and Allegheny, Pa.	3	73	88	57.53	57.82	.3283	.3244
Richmond, Va.	2	6	3	56.83	57.67	.2382	.2311
San Francisco, Cal.	3	86	73	54.00	54.00	.3925	.3887
Scranton, Pa.	2	30	37	55.00	55.00	.2622	.2689

BRASS FINISHERS, Male.

Chicago, Ill.	2	115	128	54.00	54.65	\$0.2776	\$0.2740
Milwaukee, Wis.	3	57	56	56.40	56.43	.2248	.2252
New York, N. Y. (e).	4	129	138	53.36	53.43	.2692	.2735
Philadelphia, Pa.	2	38	29	55.89	55.97	.2864	.2808
Providence, R. I.	2	32	40	55.00	55.00	.2380	.2343

LABORERS, Male.

Atlanta, Ga.	3	95	94	59.84	59.81	\$0.1080	\$0.1135
Baltimore, Md.	3	397	332	54.00	54.00	.1556	.1566
Birmingham, Ala.	2	58	42	59.76	59.79	.1000	.1033
Boston, Mass.	7	117	102	55.97	54.00	.1662	.1753
Buffalo, N. Y.	2	105	80	60.00	60.00	.1476	.1490
Butte, Mont.	2	12	12	54.00	54.00	.3333	.3333
Chicago, Ill.	5	900	933	54.11	54.15	.1814	.1793
Cincinnati, Ohio.	3	63	61	55.57	56.39	.1324	.1352
Cleveland, Ohio.	4	165	290	54.93	54.96	.1684	.1693
Denver, Colo.	2	28	59	53.43	55.98	.1789	.1825
Des Moines, Iowa.	2	18	16	54.00	54.00	.2021	.2111
Detroit, Mich.	3	201	200	59.40	59.49	.1562	.1541
Dubuque, Iowa.	2	83	38	59.80	59.76	.1686	.1849
Evansville, Ind.	4	29	28	58.66	58.39	.1597	.1591
Fall River, Mass.	2	70	62	58.31	58.29	.1270	.1289
Grand Rapids, Mich.	4	58	77	57.79	57.70	.1698	.1720
Hoboken, N. J.	2	28	31	56.14	55.94	.1894	.1894
Indianapolis, Ind.	3	328	328	54.27	54.52	.1518	.1528
Jacksonville, Fla.	2	19	19	60.00	60.00	.1180	.1193
Kansas City, Mo.	2	15	16	60.00	60.00	.1700	.1809

* Greater New York.

TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

FOUNDRY AND MACHINE SHOP—Continued.

LABORERS, Male—Concluded.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Little Rock, Ark.	2	22	30	54.55	60.00	\$0.1580	\$0.1564
Los Angeles, Cal.	2	22	24	58.91	59.00	.2000	.2031
Louisville, Ky.	3	71	66	59.65	59.70	.1399	.1392
Manchester, N. H.	2	44	55	60.00	60.00	.1343	.1339
Memphis, Tenn.	3	112	114	57.11	57.11	.1527	.1526
Milwaukee, Wis.	6	558	668	55.47	55.40	.1624	.1624
Minneapolis, Minn.	2	110	244	55.00	55.00	.1745	.1761
Mobile, Ala.	2	57	52	54.00	54.00	.1473	.1482
Montgomery, Ala.	3	42	42	60.00	60.00	.1121	.1121
Nashville, Tenn.	2	18	22	59.00	59.18	.1142	.1205
Newark, N. J.	2	127	129	54.00	54.00	.1776	.1831
New Orleans, La.	4	125	151	54.00	54.00	.1738	.1729
New York, N. Y. (a)	6	61	64	54.25	54.25	.1918	.1975
Omaha, Nebr.	2	67	92	60.00	60.00	.1699	.1655
Philadelphia, Pa.	7	450	502	56.78	56.74	.1523	.1518
Pittsburg and Allegheny, Pa.	5	367	403	59.18	57.78	.1533	.1578
Portland, Me.	2	20	11	59.00	59.00	.1465	.1582
Portland, Oreg.	2	26	28	54.00	54.00	.2382	.2351
Providence, R. I.	6	310	438	58.58	58.70	.1530	.1589
Richmond, Va.	3	93	107	58.83	58.66	.1104	.1170
Rochester, N. Y.	5	69	102	54.87	54.65	.1831	.1890
St. Louis, Mo.	2	143	145	54.00	54.00	.1808	.1926
St. Paul, Minn.	2	52	97	59.13	59.06	.1830	.1761
Salt Lake City, Utah.	2	21	34	54.00	54.00	.2116	.2132
San Antonio, Tex.	2	40	21	54.00	54.00	.1625	.1517
San Francisco, Cal.	4	101	99	54.00	54.00	.2298	.2245
Scranton, Pa.	2	192	184	57.21	57.20	.1414	.1407
Seattle, Wash.	2	64	69	54.00	54.00	.2320	.2309
Syracuse, N. Y.	2	39	60	56.38	57.00	.1627	.1581
Terre Haute, Ind.	2	29	29	58.55	58.55	.1517	.1517
Toledo, Ohio.	2	10	25	56.40	60.00	.1604	.1644
Troy, N. Y.	5	47	58	58.17	58.05	.1662	.1739
Washington, D. C.	3	47	42	51.30	51.33	.1703	.1710
Wilkes-Barre, Pa.	2	150	180	60.00	60.00	.1427	.1428
Williamsport, Pa.	2	75	77	55.80	55.78	.1510	.1515
Wilmington, Del.	2	165	145	54.00	54.00	.1348	.1332
Worcester, Mass.	2	80	87	58.36	58.32	.1528	.1546

MACHINISTS, Male.

Atlanta, Ga.	3	32	29	59.63	59.66	\$0.2921	\$0.2972
Baltimore, Md.	4	116	104	54.00	54.00	.2632	.2626
Birmingham, Ala.	2	33	34	59.79	59.71	.2939	.2975
Boston, Mass.	5	67	65	54.30	54.00	.2861	.2858
Buffalo, N. Y.	2	61	40	57.05	56.40	.2650	.2739
Butte, Mont.	2	18	16	54.00	54.00	.5000	.5000
Charleston, S. C.	2	11	12	56.73	54.00	.3058	.3062
Chicago, Ill.	4	330	264	54.00	54.00	.3022	.2983
Cincinnati, Ohio.	5	217	238	55.47	55.32	.2458	.2456
Cleveland, Ohio.	4	147	277	55.24	55.13	.2418	.2329
Dallas, Tex.	2	16	17	54.00	54.00	.3118	.3284
Denver, Colo.	2	42	59	53.79	56.53	.3057	.2982
Des Moines, Iowa.	2	28	26	54.00	54.00	.3083	.3098
Detroit, Mich.	3	16	26	59.19	59.12	.2744	.2671
Dubuque, Iowa.	3	21	21	59.33	59.33	.2289	.2313
Evansville, Ind.	4	43	39	57.53	57.13	.2401	.2456
Fort Wayne, Ind.	3	69	55	56.36	56.69	.2599	.2611
Grand Rapids, Mich.	3	29	33	59.00	59.00	.2508	.2473
Hoboken, N. J.	2	64	91	53.11	53.12	.3227	.3193
Indianapolis, Ind.	3	169	241	52.92	52.28	.2826	.2924
Jacksonville, Fla.	2	11	11	60.00	60.00	.2909	.3000
Jersey City, N. J.	2	42	39	53.00	53.00	.3284	.3310
Little Rock, Ark.	2	18	16	55.67	60.00	.3185	.2458
Los Angeles, Cal.	2	30	49	54.00	56.08	.3367	.3388
Louisville, Ky.	3	29	28	59.32	59.61	.2524	.2496
Manchester, N. H.	2	195	216	60.00	60.00	.3072	.3072
Memphis, Tenn.	2	32	32	54.00	54.00	.3233	.3203
Milwaukee, Wis.	7	755	838	55.31	55.24	.2662	.2680
Minneapolis, Minn.	2	63	59	55.99	55.99	.2785	.2830

(a) Greater New York.

TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

FOUNDRY AND MACHINE SHOP—Continued.

MACHINISTS, Male—Concluded.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Mobile, Ala.....	2	26	35	54.00	54.00	\$0.3209	\$0.3246
Montgomery, Ala.....	2	10	9	60.00	60.00	.2850	.2972
Nashville, Tenn.....	2	20	18	54.00	54.00	.3100	.3156
Newark, N. J.....	2	63	65	54.00	54.00	.2917	.2999
New Orleans, La.....	4	109	96	54.00	54.00	.3389	.3452
New York, N. Y. (a).....	9	388	418	54.04	54.05	.3016	.3087
Norfolk, Va.....	2	14	13	54.00	54.00	.2778	.2821
Omaha, Nebr.....	2	9	11	60.00	60.00	.3361	.3323
Philadelphia, Pa.....	6	432	380	55.85	55.89	.2716	.2766
Pittsburg and Allegheny, Pa.....	5	335	429	58.19	58.59	.2978	.2879
Portland, Me.....	2	60	52	59.00	59.00	.2478	.2494
Portland, Oreg.....	2	18	35	54.00	54.00	.3920	.3794
Providence, R. I.....	6	369	507	58.53	58.64	.2555	.2571
Richmond, Va.....	3	36	40	56.83	57.25	.2563	.2598
Rochester, N. Y.....	3	156	198	52.85	54.00	.2786	.2794
St. Louis, Mo.....	5	203	220	54.00	54.00	.3014	.3288
St. Paul, Minn.....	3	30	39	59.00	59.00	.2742	.2789
Salt Lake City, Utah.....	2	24	29	54.00	54.00	.3903	.3879
San Antonio, Tex.....	2	11	13	54.00	54.00	.3374	.3261
San Francisco, Cal.....	4	187	160	54.00	54.00	.3556	.3646
Seranton, Pa.....	2	152	119	55.00	55.00	.2654	.2674
Seattle, Wash.....	2	34	37	54.00	54.00	.3441	.3466
Terre Haute, Ind.....	2	16	14	54.00	54.00	.2858	.2830
Toledo, Ohio.....	2	20	27	54.00	57.56	.2797	.2802
Trenton, N. J.....	2	110	93	54.00	54.00	.2983	.2993
Troy, N. Y.....	3	50	40	59.34	59.35	.2467	.2523
Washington, D. C.....	4	38	36	49.47	49.50	.3122	.3184
Wilkes-Barre, Pa.....	2	46	77	60.00	60.00	.2850	.2823
Williamsport, Pa.....	2	50	49	58.84	58.84	.2447	.2445
Wilmington, Del.....	2	68	64	54.00	54.00	.2649	.2559
Worcester, Mass.....	2	133	205	57.21	57.21	.2566	.2553

MOLDERS, IRON, Male.

Atlanta, Ga.....	3	13	18	59.69	59.67	\$0.2920	\$0.3003
Baltimore, Md.....	2	63	60	54.00	54.00	.3051	.3058
Birmingham, Ala.....	2	13	15	59.46	59.47	.2923	.3083
Boston, Mass.....	4	123	123	55.18	54.00	.3012	.3018
Buffalo, N. Y.....	2	23	20	60.00	60.00	.2907	.3008
Butte, Mont.....	2	15	14	54.00	53.79	.5000	.5000
Charleston, S. C.....	2	12	10	57.00	54.00	.2799	.2746
Chicago, Ill.....	4	144	142	54.00	54.00	.3335	.3281
Cincinnati, Ohio.....	2	21	22	60.00	60.00	.3293	.3145
Cleveland, Ohio.....	2	54	78	52.33	54.14	.2726	.2402
Dallas, Tex.....	2	17	19	54.00	54.00	.3333	.3222
Denver, Colo.....	2	24	47	53.58	53.38	.3020	.3012
Detroit, Mich.....	2	42	63	59.31	59.63	.3013	.3045
Des Moines, Iowa.....	2	37	31	54.00	54.00	.3408	.3456
Dubuque, Iowa.....	2	14	21	59.64	59.67	.2348	.2329
Evansville, Ind.....	5	25	23	57.60	57.39	.2704	.2667
Fall River, Mass.....	2	60	61	60.00	60.00	.2466	.2516
Grand Rapids, Mich.....	3	30	33	54.00	54.00	.3067	.3098
Hoboken, N. J.....	2	33	36	54.00	54.00	.3350	.3366
Indianapolis, Ind.....	3	88	83	53.43	53.57	.2689	.2841
Jacksonville, Fla.....	2	9	9	60.00	60.00	.2778	.2639
Los Angeles, Cal.....	2	18	27	54.00	57.11	.3591	.3571
Louisville, Ky.....	2	13	18	59.85	59.83	.2773	.2741
Manchester, N. H.....	2	35	41	60.00	60.00	.2431	.2457
Memphis, Tenn.....	2	29	29	54.00	54.00	.3276	.3276
Milwaukee, Wis.....	4	210	315	56.02	55.51	.3253	.3222
Minneapolis, Minn.....	2	18	24	54.00	54.00	.3347	.3128
Mobile, Ala.....	2	6	10	54.00	54.00	.3102	.2694
Montgomery, Ala.....	2	7	10	60.00	60.00	.3000	.3000
Newark, N. J.....	3	89	117	54.00	54.00	.3362	.3345
New Haven, Conn.....	2	40	50	60.00	56.52	.2817	.2827
New Orleans, La.....	3	27	39	54.00	54.00	.3312	.3333
New York, N. Y. (a).....	4	126	118	54.00	54.00	.3362	.3349
Norfolk, Va.....	2	11	14	54.00	54.00	.2773	.2798

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TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

FOUNDRY AND MACHINE SHOP—Continued.

MOLDERS, IRON, Male—Continued.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Philadelphia, Pa.	7	166	178	55.22	55.25	\$0.3138	\$0.3277
Pittsburg and Allegheny, Pa.	4	104	111	57.82	56.40	.3227	.3284
Portland, Oreg.	2	11	13	54.00	54.00	.3090	.3090
Providence, R. I.	3	91	156	58.49	58.74	.3261	.3288
Richmond, Va.	4	48	29	58.13	58.72	.3436	.3474
Rochester, N. Y.	4	71	89	54.00	54.00	.3157	.3180
St. Louis, Mo.	3	96	101	54.00	54.00	.3218	.3244
St. Paul, Minn.	2	36	42	54.00	54.00	.3406	.3238
Salt Lake City, Utah.	2	24	28	54.00	54.00	.3803	.3829
San Antonio, Tex.	2	3	5	54.00	54.00	.3611	.3167
San Francisco, Cal.	3	42	45	54.00	54.00	.3874	.3846
Scranton, Pa.	2	64	72	57.66	58.06	.2898	.2964
Seattle, Wash.	2	28	28	54.00	54.00	.4012	.4013
Syracuse, N. Y.	2	41	64	54.00	54.00	.3145	.3132
Terre Haute, Ind.	2	18	14	54.00	54.00	.2894	.2863
Toledo, Ohio.	2	11	17	56.73	60.00	.2917	.2730
Wilkes-Barre, Pa.	2	40	42	60.00	60.00	.2888	.2889
Wilmington, Del.	2	61	58	54.00	54.00	.2960	.2761
Worcester, Mass.	2	70	48	55.97	56.25	.3250	.2839

PATTERN MAKERS, Male.

Atlanta, Ga.	3	9	8	59.67	59.63	\$0.2877	\$0.3019
Baltimore, Md.	3	21	26	54.00	54.00	.3214	.3205
Birmingham, Ala.	2	7	9	59.57	59.67	.3143	.3000
Boston, Mass.	4	12	11	55.67	54.00	.3266	.3206
Buffalo, N. Y.	2	3	6	56.00	56.00	.3350	.3350
Butte, Mont.	2	4	4	54.00	54.00	.3000	.3000
Charleston, S. C.	2	4	4	57.00	54.00	.2966	.3125
Chicago, Ill.	3	71	75	54.00	54.00	.3713	.3685
Cincinnati, Ohio.	3	13	16	55.00	55.00	.3176	.3232
Dallas, Tex.	2	4	5	54.00	54.00	.3611	.3444
Denver, Colo.	2	3	10	53.67	57.20	.3300	.3475
Des Moines, Iowa.	2	6	5	54.00	54.00	.3305	.3296
Detroit, Mich.	2	6	11	59.50	59.36	.2472	.2764
Dubuque, Iowa.	2	5	5	59.60	59.60	.2533	.2767
Evansville, Ind.	2	2	2	56.50	56.50	.2500	.2500
Fall River, Mass.	2	3	5	58.67	58.00	.2667	.2610
Grand Rapids, Mich.	2	6	8	58.17	58.38	.2628	.2479
Hartford, Conn.	2	5	5	54.00	54.00	.3389	.3378
Indianapolis, Ind.	3	18	19	54.33	54.95	.3275	.3226
Jersey City, N. J.	2	5	3	53.00	53.00	.3679	.3679
Little Rock, Ark.	2	2	7	57.00	60.00	.3444	.3393
Los Angeles, Cal.	2	13	18	54.00	56.50	.3406	.3591
Louisville, Ky.	2	4	7	59.75	59.57	.3050	.2921
Manchester, N. H.	2	7	7	60.00	60.00	.2229	.2264
Memphis, Tenn.	2	7	7	54.00	54.00	.3452	.3452
Milwaukee, Wis.	5	107	141	55.08	55.06	.3157	.3203
Minneapolis, Minn.	2	21	9	55.00	55.00	.3032	.3208
Mobile, Ala.	2	4	6	54.00	54.00	.3333	.3472
Montgomery, Ala.	2	2	2	60.00	60.00	.3500	.3500
Nashville, Tenn.	2	2	2	54.00	54.00	.2875	.2875
Newark, N. J.	3	8	11	54.00	54.00	.3854	.4041
New Orleans, La.	4	15	18	54.00	54.00	.3370	.3395
New York, N. Y. (a)	5	62	61	54.08	54.07	.4012	.4036
Norfolk, Va.	2	2	2	54.00	54.00	.3056	.3195
Philadelphia, Pa.	7	38	63	56.34	56.32	.3146	.3116
Pittsburg and Allegheny, Pa.	4	47	56	58.34	55.93	.3171	.3300
Portland, Oreg.	2	4	5	54.00	54.00	.4098	.4167
Providence, R. I.	4	40	42	57.53	57.64	.2928	.2965
Richmond, Va.	2	9	7	57.56	57.29	.2989	.2965
Rochester, N. Y.	4	12	10	53.33	54.00	.3132	.3329
St. Louis, Mo.	3	21	19	54.00	54.00	.3533	.3647
St. Paul, Minn.	2	10	12	59.00	59.00	.3159	.3028
Salt Lake City, Utah.	2	7	8	54.00	54.00	.3770	.3785
San Antonio, Tex.	2	2	4	54.00	54.00	.4028	.3472
San Francisco, Cal.	4	31	23	54.00	54.00	.4109	.4147
Scranton, Pa.	2	16	19	55.00	55.00	.2900	.3018

(a) Greater New York.

TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

FOUNDRY AND MACHINE SHOP—Concluded.

PATTERN MAKERS, Male—Concluded.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Seattle, Wash.....	2	7	3	54.00	54.00	\$0.3948	\$0.4280
Syracuse, N. Y.....	2	5	5	57.00	56.00	.2700	.2757
Terre Haute, Ind.....	2	3	3	54.00	54.00	.2750	.2861
Toledo, Ohio.....	2	2	3	54.00	58.00	.2875	.3028
Troy, N. Y.....	2	2	3	58.50	59.33	.3153	.3034
Wilkes-Barre, Pa.....	2	13	12	60.00	60.00	.2892	.2904
Wilmington, Del.....	2	5	5	54.00	54.00	.2972	.2912
Worcester, Mass.....	2	13	11	57.54	57.45	.2785	.2841

FURNITURE.

CABINETMAKERS, Male.

Baltimore, Md.....	2	21	82	54.29	52.88	\$0.2004	\$0.2726
Boston, Mass.....	6	120	144	50.37	50.38	.3381	.3488
Chicago, Ill.....	6	138	138	53.13	54.76	.2627	.2580
Cincinnati, Ohio.....	5	140	141	59.19	55.57	.2233	.2344
Detroit, Mich.....	3	98	80	51.85	52.28	.2747	.2671
Dubuque, Iowa.....	2	15	17	60.00	60.00	.2251	.2231
Evansville, Ind.....	4	25	27	60.00	60.00	.2105	.2033
Grand Rapids, Mich.....	3	114	127	59.83	59.85	.1937	.1961
High Point, N. C.....	3	76	75	60.00	60.00	.1335	.1469
Indianapolis, Ind.....	2	16	15	57.63	57.67	.2376	.2565
Milwaukee, Wis.....	3	67	66	60.00	60.00	.1995	.2102
New York, N. Y. (a).....	6	96	100	57.71	58.01	.2537	.2510
Philadelphia, Pa.....	3	95	109	57.16	56.39	.2521	.2583
St. Louis, Mo.....	3	59	58	56.34	56.48	.2421	.2440

MACHINE WOODWORKERS, Male.

Baltimore, Md.....	2	24	33	58.00	57.58	\$0.2092	\$0.2164
Boston, Mass.....	6	39	38	50.31	50.32	.3114	.3496
Chicago, Ill.....	6	93	94	53.23	54.00	.2534	.2529
Cincinnati, Ohio.....	5	54	63	59.00	56.38	.2123	.2278
Detroit, Mich.....	3	86	64	55.66	55.31	.2028	.2082
Dubuque, Iowa.....	2	7	7	60.00	60.00	.1833	.1843
Evansville, Ind.....	4	71	71	60.00	60.00	.1784	.1785
Grand Rapids, Mich.....	3	80	89	59.78	59.80	.2048	.2074
High Point, N. C.....	3	143	140	60.00	60.00	.1389	.1525
Indianapolis, Ind.....	3	68	78	57.82	57.86	.1857	.1909
Milwaukee, Wis.....	3	41	47	60.00	60.00	.1831	.1801
New York, N. Y. (a).....	5	58	78	56.95	57.55	.2554	.2523
Philadelphia, Pa.....	3	64	59	58.41	57.64	.2482	.2558
St. Louis, Mo.....	2	73	73	60.00	60.00	.1902	.1901

UPHOLSTERERS, Male.

Boston, Mass.....	4	55	65	50.05	50.05	\$0.3616	\$0.3685
Chicago, Ill.....	4	143	144	53.50	53.35	.2709	.2719
Detroit, Mich.....	2	21	22	54.00	54.00	.2468	.2568
New York, N. Y. (a).....	4	79	73	48.29	48.40	.3800	.4008
St. Louis, Mo.....	2	24	24	50.00	50.00	.2291	.2280

(a) Greater New York.

TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

FURNITURE—Concluded.

VARNISHERS, Male.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Baltimore, Md.....	2	32	31	59.00	57.94	\$0.1508	\$0.1753
Boston, Mass.....	5	57	58	50.16	50.16	.2812	.2953
Chicago, Ill.....	7	190	226	53.45	54.46	.2219	.2166
Cincinnati, Ohio.....	5	65	74	59.54	57.00	.1822	.1808
Detroit, Mich.....	4	99	101	55.54	55.44	.1852	.1836
Dubuque, Iowa.....	2	8	8	60.00	60.00	.1977	.1959
Evansville, Ind.....	4	40	41	60.00	60.00	.1832	.1822
Grand Rapids, Mich.....	3	38	38	59.79	59.82	.1822	.1883
High Point, N. C.....	3	30	35	60.00	60.00	.1305	.1386
Indianapolis, Ind.....	2	12	14	57.50	57.57	.2007	.2057
Milwaukee, Wis.....	3	60	93	60.00	60.00	.1631	.1643
New York, N. Y. (a).....	6	109	125	58.22	58.48	.2088	.2121
Philadelphia, Pa.....	3	74	77	58.86	58.38	.1922	.2089
St. Louis, Mo.....	2	29	29	60.00	60.00	.2016	.2061

LIQUORS, MALT.

BOTTLEERS, Male.

Boston, Mass.....	2	32	37	55.97	56.11	\$0.2426	\$0.2411
Chicago, Ill.....	3	108	115	60.00	54.00	.1853	.2122
Cincinnati, Ohio.....	2	15	18	60.00	60.00	.1750	.1750
Detroit, Mich.....	2	10	10	48.00	48.00	.2614	.2614
Milwaukee, Wis.....	3	1,465	1,625	48.00	48.00	.1799	.1862
Philadelphia, Pa.....	2	17	21	60.00	60.00	.1775	.1714
Rochester, N. Y.....	2	6	7	54.00	54.00	.1976	.2064
St. Louis, Mo.....	2	976	864	54.00	53.98	.1992	.1974

CELLAR MEN, Male.

Boston, Mass.....	2	38	44	54.47	54.41	\$0.3026	\$0.3017
Buffalo, N. Y.....	2	17	16	54.00	54.00	.3067	.3169
Chicago, Ill.....	3	33	34	48.00	48.00	.3750	.3750
Cincinnati, Ohio.....	2	23	24	60.00	60.00	.2507	.2507
Detroit, Mich.....	2	9	9	48.00	48.00	.3403	.3403
Milwaukee, Wis.....	3	185	184	48.00	48.00	.3071	.3167
Newark, N. J.....	2	10	11	54.00	54.00	.3407	.3400
New York, N. Y. (a).....	6	136	150	60.00	59.60	.3002	.3026
Philadelphia, Pa.....	3	40	43	60.00	60.00	.2738	.2721
Rochester, N. Y.....	2	22	20	54.00	54.00	.2778	.2870
St. Louis, Mo.....	2	103	103	48.00	48.00	.3396	.3396
San Francisco, Cal.....	2	47	45	48.00	48.00	.4180	.4375

COOPERS, Male.

Boston, Mass.....	2	11	10	48.00	48.00	\$0.4489	\$0.4500
Buffalo, N. Y.....	2	4	5	54.00	54.00	.2778	.2778
Chicago, Ill.....	2	7	7	48.00	48.00	.3750	.3810
Milwaukee, Wis.....	3	277	241	48.00	48.00	.3024	.3172
New York, N. Y. (a).....	6	19	22	58.16	58.40	.3078	.3082
Philadelphia, Pa.....	3	9	10	57.33	57.60	.2743	.2752
Rochester, N. Y.....	2	9	8	54.00	54.00	.2778	.2870
San Francisco, Cal.....	2	14	16	48.00	48.00	.4182	.4288

a Greater New York.

TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

LIQUORS, MALT—Concluded.

DRIVERS, Male.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Boston, Mass.	2	72	74	54.13	54.00	\$0.3062	\$0.3086
Buffalo, N. Y.	2	24	22	54.00	54.00	.2666	.2719
Chicago, Ill.	3	28	27	60.00	60.00	.3071	.3067
Cincinnati, Ohio.	2	29	33	60.00	60.00	.2405	.2387
Denver, Colo.	2	15	15	60.00	60.00	.2952	.2962
Detroit, Mich.	2	18	18	60.00	60.00	.2616	.2584
Milwaukee, Wis.	3	153	160	54.00	51.08	.2569	.2813
Newark, N. J.	2	27	29	58.22	58.34	.3010	.2997
New York, N. Y. ^(a)	6	256	272	60.95	59.85	.2874	.2724
Philadelphia, Pa.	3	65	65	63.88	63.14	.2649	.2658
Rochester, N. Y.	2	12	13	54.00	54.00	.3117	.3120
St. Louis, Mo.	2	132	134	63.64	63.54	.2368	.2364
San Francisco, Cal.	2	22	26	60.00	60.00	.4238	.4098

FERMENTERS, Male.

Boston, Mass.	2	6	6	54.00	55.50	\$0.3271	\$0.3377
Buffalo, N. Y.	2	4	4	54.00	54.00	.3056	.3148
Chicago, Ill.	3	11	12	48.00	48.00	.3816	.3785
Cincinnati, Ohio.	2	2	3	60.00	60.00	.2667	.2667
Detroit, Mich.	2	4	4	48.00	48.00	.3333	.3333
Milwaukee, Wis.	2	64	65	48.00	48.00	.3065	.3173
Newark, N. J.	2	8	8	54.00	54.00	.3472	.3472
New York, N. Y. ^(a)	6	36	40	60.00	59.40	.3000	.3053
Philadelphia, Pa.	3	17	16	60.00	60.00	.2726	.2771
Rochester, N. Y.	2	6	6	54.00	54.00	.2871	.2963
St. Louis, Mo.	2	36	37	48.00	48.00	.3369	.3432

KETTLE MEN, Male.

Boston, Mass.	2	6	6	54.00	54.00	\$0.3271	\$0.3271
Buffalo, N. Y.	2	5	5	54.00	54.00	.3056	.3167
Chicago, Ill.	3	8	8	48.00	48.00	.3750	.3750
Cincinnati, Ohio.	2	4	4	60.00	60.00	.2792	.2792
Detroit, Mich.	2	2	2	48.00	48.00	.3438	.3438
Milwaukee, Wis.	3	58	61	49.72	48.00	.3077	.3176
Newark, N. J.	2	6	6	54.00	54.00	.3457	.3457
New York, N. Y. ^(a)	6	28	28	60.00	59.14	.3048	.3107
Philadelphia, Pa.	3	12	13	60.00	60.00	.2736	.2834
Rochester, N. Y.	2	7	7	54.00	54.00	.2804	.2897
St. Louis, Mo.	2	24	22	48.00	48.00	.3503	.3504
San Francisco, Cal.	2	17	16	48.00	48.00	.4191	.4375

MARBLE AND STONE WORK.

MARBLE CUTTERS, Male.

Augusta, Ga.	2	5	4	50.40	51.00	\$0.3521	\$0.3464
Boston, Mass.	2	46	39	48.00	48.00	.3810	.3550
Charleston, S. C.	2	6	6	53.00	53.00	.2453	.2453
Chicago, Ill.	2	20	30	52.45	52.97	.3000	.3064
Cincinnati, Ohio.	3	8	7	57.00	57.43	.2743	.2778
Dallas, Tex.	2	3	4	53.33	53.50	.3000	.2951
Davenport, Iowa.	2	6	6	55.33	55.33	.3388	.3180
Detroit, Mich.	2	11	11	51.27	51.27	.2636	.2636
Jacksonville, Fla.	2	15	17	50.00	49.76	.4119	.4316
Little Rock, Ark.	2	4	5	60.00	60.00	.3000	.3050
Louisville, Ky.	2	7	5	52.29	52.80	.3249	.3274
Manchester, N. H.	2	3	3	54.00	54.00	.2683	.2683
Memphis, Tenn.	2	15	15	57.67	57.67	.2761	.2761
Montgomery, Ala.	2	9	9	58.89	58.89	.2329	.2577
New Orleans, La.	3	17	15	53.50	53.20	.3176	.3138

^a Greater New York.

TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS; BY CITIES—Continued.

MARBLE AND STONE WORK—Concluded.

MARBLE CUTTERS, Male—Concluded.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
New York, N. Y. (a).....	3	63	76	44.00	44.00	\$0.6250	\$0.6250
Philadelphia, Pa.....	3	15	13	49.33	49.38	.3472	.3488
Pittsburg and Allegheny, Pa.....	2	8	7	51.00	50.57	.4410	.4405
Portland, Oreg.....	2	9	9	48.00	48.00	.4722	.4722
Providence, R. I.....	2	2	2	48.00	48.00	.3438	.3438
San Francisco, Cal.....	4	10	10	48.00	48.00	.4625	.4656
Worcester, Mass.....	2	3	3	48.00	48.00	.4383	.4600

STONECUTTERS, GRANITE, Male.

Atlanta, Ga.....	3	54	41	48.00	48.00	\$0.4028	\$0.4183
Augusta, Ga.....	2	9	11	48.00	48.00	.3750	.3750
Boston, Mass.....	4	67	76	48.00	48.00	.3750	.4030
Buffalo, N. Y.....	2	7	7	48.00	48.00	.3907	.3829
Butte, Mont.....	2	7	7	48.00	48.00	.5343	.5378
Denver, Colo.....	2	14	15	44.00	44.00	.4839	.5063
Jersey City, N. J.....	16	16	16	47.25	47.25	.4110	.4129
Manchester, N. H.....	19	19	19	48.00	48.00	.3421	.3507
Milwaukee, Wis.....	26	22	22	55.73	56.27	.3013	.2804
Newark, N. J.....	11	10	10	46.45	46.40	.4432	.4469
Philadelphia, Pa.....	61	49	44	44.00	44.00	.4519	.4773
Pittsburg and Allegheny, Pa.....	3	17	17	48.00	48.00	.4375	.4375
Portland, Oreg.....	6	6	7	48.00	48.00	.5208	.5179
Providence, R. I.....	14	13	13	48.00	48.00	.3668	.3700
Quincy, Mass.....	59	46	46	48.00	48.00	.3455	.3745
Richmond, Va.....	37	33	33	48.00	48.00	.3750	.3750
San Francisco, Cal.....	162	62	48	48.00	48.00	.5625	.5625
Seattle, Wash.....	8	6	6	44.00	44.00	.5156	.5625
Washington, D. C.....	10	11	11	48.00	48.00	.4000	.4000
Wilkes-Barre, Pa.....	10	9	9	48.00	48.00	.4500	.4500
Wilmington, Del.....	5	8	5	52.80	53.25	.2996	.2842
Worcester, Mass.....	2	134	125	48.00	48.00	.3826	.3979

STONECUTTERS, SOFT STONE, Male.

Baltimore, Md.....	2	55	35	48.00	48.00	\$0.4500	\$0.5000
Birmingham, Ala.....	3	10	13	44.80	44.02	.4500	.4500
Buffalo, N. Y.....	2	56	37	48.00	48.00	.5000	.5000
Chicago, Ill.....	2	16	16	44.00	44.00	.5000	.5625
Cincinnati, Ohio.....	2	32	32	48.00	48.00	.5000	.5000
Davenport, Iowa.....	2	5	6	50.20	49.83	.4610	.4675
Denver, Colo.....	3	14	15	44.00	44.00	.5636	.5640
Detroit, Mich.....	3	32	34	44.50	44.59	.5000	.5000
Indianapolis, Ind.....	3	27	43	47.11	47.14	.4815	.4895
Kansas City, Mo.....	2	23	24	48.78	48.50	.4758	.4838
Little Rock, Ark.....	2	39	33	44.51	44.73	.5026	.5439
Louisville, Ky.....	2	22	24	48.00	48.00	.4500	.4500
Memphis, Tenn.....	2	7	9	44.00	44.00	.6000	.6000
Milwaukee, Wis.....	2	38	33	48.00	48.00	.5000	.5000
Nashville, Tenn.....	2	15	28	48.00	48.00	.4000	.4536
Newark, N. J.....	2	127	88	44.00	44.00	.5773	.5575
New York, N. Y. (a).....	5	137	142	44.00	44.00	.5877	.5722
Philadelphia, Pa.....	2	27	26	44.00	44.00	.5000	.5000
Richmond, Va.....	2	10	10	48.00	48.00	.4250	.4250
St. Louis, Mo.....	2	21	18	45.71	46.22	.5625	.5625
St. Paul, Minn.....	2	12	5	48.00	48.00	.5125	.5300
Washington, D. C.....	2	13	15	48.00	48.00	.5000	.5000
Wheeling, W. Va.....	2	9	9	50.22	50.22	.4287	.4287

(a) Greater New York.

TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

**PLANING MILL.
CARPENTERS, Male.**

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Atlanta, Ga.	2	31	28	50.16	50.14	\$0.2257	\$0.2319
Baltimore, Md.	3	47	45	55.98	56.00	.2755	.2798
Boston, Mass.	2	24	23	53.42	50.83	.3500	.3596
Buffalo, N. Y.	4	59	60	60.00	60.00	.2329	.2336
Cincinnati, Ohio.	3	45	47	54.30	54.30	.2703	.2737
Cleveland, Ohio.	2	23	24	57.48	57.75	.2454	.2505
Detroit, Mich.	3	82	78	50.68	50.67	.3413	.3456
Indianapolis, Ind.	2	12	13	55.00	55.00	.2458	.2442
Lake Charles, La.	2	6	8	55.00	54.75	.2732	.2806
Louisville, Ky.	2	26	26	54.00	54.00	.2392	.2523
Milwaukee, Wis.	2	30	38	60.00	60.00	.1918	.2008
Montgomery, Ala.	2	13	13	60.00	60.00	.2519	.2519
New Orleans, La.	2	37	42	54.00	54.00	.2613	.2579
New York, N. Y. (a)	6	151	148	49.68	50.77	.3518	.3361
North Tonawanda, N. Y.	2	11	13	60.00	60.00	.2432	.2538
Oshkosh, Wis.	3	25	24	60.00	60.00	.1779	.1808
Philadelphia, Pa.	2	37	37	54.00	54.00	.2841	.2843
Pittsburg and Allegheny, Pa.	3	46	46	51.78	51.45	.4009	.4079
Racine, Wis.	2	19	16	59.58	59.63	.2293	.2438
Saginaw, Mich.	3	10	9	56.40	57.33	.2022	.2019
San Francisco, Cal.	2	27	34	48.00	48.00	.4421	.4467
St. Louis, Mo.	2	73	76	60.00	60.00	.2736	.2734
Terre Haute, Ind.	2	18	16	56.22	55.56	.2525	.2438

LABORERS, Male.

Atlanta, Ga.	2	59	54	50.64	50.54	\$0.0985	\$0.1034
Buffalo, N. Y.	4	31	27	60.00	60.00	.1573	.1639
Cadillac, Mich.	2	61	80	60.00	60.00	.1472	.1487
Chicago, Ill.	2	28	30	56.14	56.40	.1607	.1618
Detroit, Mich.	2	31	28	51.16	51.71	.1768	.1729
Indianapolis, Ind.	2	6	16	55.00	55.00	.1417	.1481
Lake Charles, La.	3	201	216	65.25	65.33	.1427	.1428
Louisville, Ky.	2	18	20	54.00	54.00	.1289	.1275
Milwaukee, Wis.	2	30	36	60.00	60.00	.1403	.1492
Minneapolis, Minn.	3	152	155	60.00	60.00	.1700	.1740
Montgomery, Ala.	3	59	60	60.00	60.00	.1095	.1225
New Orleans, La.	2	39	23	58.77	54.00	.1462	.1621
New York, N. Y. (a)	7	60	73	54.07	54.34	.1879	.1826
North Tonawanda, N. Y.	3	45	63	60.00	60.00	.1572	.1606
Oshkosh, Wis.	3	144	156	60.00	60.00	.1434	.1440
Pittsburg and Allegheny, Pa.	2	10	12	58.20	58.50	.1808	.1799
Rochester, N. Y.	2	15	16	54.00	54.00	.1784	.1840
Saginaw, Mich.	3	108	108	59.83	59.83	.1406	.1414
San Francisco, Cal.	2	21	37	48.00	48.00	.2634	.2475
Terre Haute, Ind.	2	8	8	59.75	59.75	.1625	.1617

MACHINE WOODWORKERS, Male.

Atlanta, Ga.	2	15	16	50.33	50.31	\$0.2124	\$0.2261
Baltimore, Md.	3	45	42	58.09	58.00	.2431	.2462
Boston, Mass.	2	18	15	53.39	50.67	.3132	.3377
Buffalo, N. Y.	4	25	23	60.00	60.00	.2360	.2413
Cadillac, Mich.	2	31	35	60.00	60.00	.1865	.1857
Chicago, Ill.	2	22	23	54.00	57.13	.2771	.2685
Cincinnati, Ohio.	3	38	41	54.34	54.29	.2822	.2833
Cleveland, Ohio.	2	21	17	58.52	58.41	.2456	.2426
Detroit, Mich.	3	35	32	51.14	51.00	.3041	.2832
Indianapolis, Ind.	2	12	14	55.00	55.00	.2521	.2569
Lake Charles, La.	3	30	30	62.60	62.60	.1913	.1938
Louisville, Ky.	2	24	21	54.00	54.00	.2375	.2444
Milwaukee, Wis.	2	39	42	60.00	60.00	.1813	.1857
Minneapolis, Minn.	3	48	50	60.00	60.00	.2185	.2213
Montgomery, Ala.	3	12	12	60.00	60.00	.1833	.1896
Muscatine, Iowa.	2	57	58	60.00	60.00	.1719	.1704
New Orleans, La.	2	39	39	54.00	54.00	.2303	.2267

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TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

PLANING MILL—Concluded.

MACHINE WOODWORKERS, Male—Concluded.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
New York, N. Y. (a).....	8	72	79	52.24	52.56	\$0.3080	\$0.3167
North Tonawanda, N. Y.....	3	10	11	60.00	60.00	.2125	.2273
Oshkosh, Wis.....	3	109	115	60.00	60.00	.1537	.1525
Philadelphia, Pa.....	2	11	12	54.00	54.00	.2302	.2374
Pittsburg and Allegheny, Pa.....	2	19	21	54.00	54.00	.3822	.3828
Racine, Wis.....	2	20	17	59.45	59.41	.2132	.2124
Rochester, N. Y.....	2	58	59	54.00	54.00	.2519	.2533
St. Louis, Mo.....	2	52	52	60.00	60.00	.2635	.2680
Saginaw, Mich.....	3	126	127	59.67	59.62	.1448	.1456
San Francisco, Cal.....	2	26	27	48.00	48.00	.4628	.4618
Terre Haute, Ind.....	2	8	7	55.88	55.43	.2089	.2079

SAWYERS, CIRCULAR, Male.

Atlanta, Ga.....	2	6	6	59.50	59.50	\$0.1598	\$0.1641
Baltimore, Md.....	3	11	11	57.18	56.73	.2174	.2197
Buffalo, N. Y.....	3	9	9	60.00	60.00	.2306	.2306
Cincinnati, Ohio.....	2	10	12	54.00	54.00	.2733	.2740
Chicago, Ill.....	2	12	13	54.00	56.31	.2843	.2932
Milwaukee, Wis.....	2	12	17	60.00	60.00	.1871	.2004
New Orleans, La.....	2	11	11	54.00	54.00	.2525	.2576
New York, N. Y. (a).....	7	23	29	51.74	53.45	.3074	.2915
North Tonawanda, N. Y.....	3	4	5	60.00	60.00	.2000	.1950
Oshkosh, Wis.....	3	23	23	60.00	60.00	.1643	.1684
Philadelphia, Pa.....	2	12	11	54.00	54.00	.2542	.2521
St. Louis, Mo.....	2	23	22	60.00	60.00	.2587	.2591
San Francisco, Cal.....	2	8	7	48.00	48.00	.3684	.4018

PRINTING AND PUBLISHING, BOOK AND JOB.

BOOKBINDERS, Male.

Albany, N. Y.....	2	47	52	53.11	52.62	\$0.3710	\$0.3608
Atlanta, Ga.....	2	7	6	54.00	54.00	.2513	.2639
Birmingham, Ala.....	2	4	4	54.00	54.00	.3195	.3426
Boston, Mass.....	2	11	11	54.00	54.00	.3190	.3190
Buffalo, N. Y.....	2	12	11	54.00	54.00	.2917	.3072
Butte, Mont.....	2	2	2	48.00	48.00	.6250	.6250
Charleston, S. C.....	2	9	9	54.00	54.00	.2922	.2922
Chicago, Ill.....	3	89	98	54.00	54.00	.3064	.2998
Cincinnati, Ohio.....	3	31	33	54.00	54.00	.2730	.2823
Cleveland, Ohio.....	2	14	14	54.00	54.00	.2837	.2837
Dallas, Tex.....	2	12	16	53.00	53.00	.3561	.3590
Denver, Colo.....	2	8	11	48.00	48.00	.3802	.3902
Des Moines, Iowa.....	2	5	5	54.00	54.00	.3259	.3259
Detroit, Mich.....	2	27	29	54.00	54.00	.2900	.3005
Dubuque, Iowa.....	2	3	3	50.00	50.00	.2412	.2412
Indianapolis, Ind.....	2	27	27	54.00	54.00	.3232	.3241
Little Rock, Ark.....	2	3	3	54.00	54.00	.3426	.3519
Los Angeles, Cal.....	3	13	14	54.00	54.00	.3248	.3287
Louisville, Ky.....	4	14	14	54.00	54.00	.2943	.2877
Minneapolis, Minn.....	2	8	14	53.78	53.14	.3208	.3262
New Haven, Conn.....	2	13	13	54.00	54.00	.2920	.2963
New Orleans, La.....	2	12	12	54.00	54.00	.2824	.2793
New York, N. Y. (a).....	4	38	45	54.16	54.13	.3805	.3735
Norfolk, Va.....	2	5	6	54.80	55.23	.2851	.2837
Omaha, Nebr.....	2	11	10	54.00	54.00	.3148	.3259
Philadelphia, Pa.....	3	23	30	54.00	54.00	.3365	.3693
Pittsburg and Allegheny, Pa.....	2	11	11	54.00	54.00	.3215	.3064
Richmond, Va.....	2	14	13	54.00	54.00	.2659	.2785
St. Louis, Mo.....	2	43	43	54.00	54.00	.2879	.2811
St. Paul, Minn.....	2	27	28	53.15	53.18	.3316	.3363
San Antonio, Tex.....	2	7	7	53.00	53.00	.3181	.3288
San Francisco, Cal.....	2	28	28	54.00	54.00	.3680	.3690
Seattle, Wash.....	2	2	2	48.00	48.00	.3125	.3125

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TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

PRINTING AND PUBLISHING, BOOK AND JOB—Continued.

BOOKBINDERS, Male—Concluded.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Sioux Falls, S. Dak.	2	4	5	54.00	54.00	\$0.3426	\$0.3407
Tacoma, Wash.	2	3	3	48.00	48.00	.3229	.3715
Terre Haute, Ind.	2	6	6	53.50	53.50	.2975	.2975
Toledo, Ohio.	2	6	6	54.00	54.00	.2985	.2840
Topeka, Kans.	2	11	9	54.00	54.00	.3004	.3169
Washington, D. C.	2	6	4	53.83	53.75	.3099	.3157
Wheeling, W. Va.	2	5	5	50.00	54.00	.2573	.2929
Wilkes-Barre, Pa.	2	9	11	53.00	53.00	.2956	.2993

COMPOSITORS, Male.

Albany, N. Y.	2	121	152	50.08	50.76	\$0.3470	\$0.3545
Atlanta, Ga.	2	18	23	54.00	54.00	.2485	.2504
Baltimore, Md.	3	59	51	55.22	55.41	.3142	.3172
Birmingham, Ala.	2	19	23	54.00	54.00	.3255	.3257
Boston, Mass.	5	126	131	51.65	51.90	.3134	.3074
Buffalo, N. Y.	2	23	31	54.00	54.00	.3148	.3241
Butte, Mont.	2	4	4	48.00	48.00	.6250	.6406
Charleston, S. C.	2	11	12	54.00	54.00	.2963	.3009
Chicago, Ill.	3	122	123	54.00	54.00	.3613	.3494
Cincinnati, Ohio.	2	26	31	54.00	54.00	.3366	.3360
Cleveland, Ohio.	2	27	30	54.00	54.00	.3220	.3281
Dallas, Tex.	2	18	24	53.00	53.00	.3915	.3754
Denver, Colo.	2	35	31	48.00	48.00	.4268	.4268
Des Moines, Iowa.	2	13	13	54.00	54.00	.2963	.2963
Detroit, Mich.	2	17	16	54.00	54.00	.3192	.3194
Dubuque, Iowa.	2	7	7	52.29	52.29	.2877	.2877
Duluth, Minn.	2	5	7	53.20	53.43	.3383	.3369
Grand Rapids, Mich.	2	13	12	56.31	56.08	.2627	.2651
Indianapolis, Ind.	2	45	46	54.00	54.00	.3321	.3327
Jacksonville, Fla.	2	16	18	54.00	54.00	.3333	.3333
Jersey City, N. J.	3	27	20	57.11	52.35	.3385	.3664
Little Rock, Ark.	2	8	8	54.00	54.00	.3375	.3470
Los Angeles, Cal.	3	21	25	54.00	54.00	.3713	.3637
Louisville, Ky.	3	54	51	54.00	54.00	.2949	.2961
Lynn, Mass.	2	6	8	55.00	55.00	.2697	.2636
Milwaukee, Wis.	2	16	15	54.00	54.00	.3148	.3148
Minneapolis, Minn.	2	26	26	53.58	53.50	.3333	.3333
Montgomery, Ala.	2	8	8	57.75	56.25	.1853	.2055
New Haven, Conn.	3	34	31	54.00	54.00	.3227	.3261
New Orleans, La.	3	19	20	53.37	49.05	.3370	.3782
New York, N. Y. (a)	4	193	188	50.81	50.68	.4133	.4387
Norfolk, Va.	3	28	32	54.57	54.50	.3015	.3022
Omaha, Nebr.	2	17	18	54.00	54.00	.3344	.3313
Peoria, Ill.	2	17	12	54.00	54.00	.3061	.3071
Philadelphia, Pa.	5	110	132	54.00	54.00	.3332	.3341
Pittsburg and Allegheny, Pa.	2	29	37	54.00	54.00	.3244	.3243
Portland, Oreg.	2	9	15	48.00	48.00	.4153	.4295
Richmond, Va.	4	26	26	54.00	54.00	.3084	.3105
Rochester, N. Y.	2	28	22	54.00	54.00	.2765	.2963
St. Louis, Mo.	3	164	165	53.98	53.97	.3335	.3604
St. Paul, Minn.	2	22	20	53.50	53.35	.3447	.3486
Salt Lake City, Utah.	2	15	14	50.20	51.14	.3808	.3785
San Antonio, Tex.	2	8	17	53.00	53.00	.3491	.3219
San Francisco, Cal.	3	46	46	51.00	48.39	.3825	.4221
Scranton, Pa.	4	7	9	50.71	47.67	.3430	.3661
Seattle, Wash.	3	12	12	48.00	48.00	.4627	.4497
Sioux Falls, S. Dak.	2	12	13	54.00	54.00	.2978	.3041
Terre Haute, Ind.	2	11	13	53.55	53.54	.2993	.2991
Toledo, Ohio.	2	17	17	54.00	54.00	.2972	.3050
Topeka, Kans.	2	11	10	53.45	53.40	.3304	.3375
Washington, D. C.	2	10	9	53.70	53.67	.3450	.3472
Wheeling, W. Va.	2	23	23	52.96	49.04	.2929	.3163
Wilkes-Barre, Pa.	3	19	21	53.00	53.00	.3019	.3082
Wilmington, Del.	2	8	7	54.00	54.00	.2732	.2752
Worcester, Mass.	2	7	10	54.00	54.00	.2884	.3028

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TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

PRINTING AND PUBLISHING, BOOK AND JOB—Concluded.

SEWERS, BOOK, Female.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Albany, N. Y.	2	11	12	52.91	53.00	\$0.1446	\$0.1392
Baltimore, Md.	3	12	18	55.33	54.89	.1146	.1198
Boston, Mass.	2	20	20	54.00	54.00	.1162	.1217
Buffalo, N. Y.	2	5	5	54.00	54.00	.1111	.1061
Chicago, Ill.	2	22	24	54.00	54.00	.1931	.2069
Cincinnati, Ohio.	2	17	17	54.00	54.00	.1404	.1388
Cleveland, Ohio.	2	4	4	54.00	54.00	.1435	.1435
Denver, Colo.	2	19	19	48.00	48.00	.1689	.1722
Detroit, Mich.	2	8	8	54.00	54.00	.1053	.1188
Los Angeles, Cal.	4	19	21	54.00	54.00	.1218	.1279
Louisville, Ky.	4	30	29	54.00	54.00	.1140	.1147
Minneapolis, Minn.	2	4	4	53.25	53.25	.1667	.1667
New York, N. Y. (a)	3	21	19	54.00	54.00	.1843	.1749
Omaha, Nebr.	2	20	18	54.00	54.00	.1060	.1132
Philadelphia, Pa.	3	14	13	54.00	54.00	.1361	.1417
Pittsburg and Allegheny, Pa.	2	8	9	54.00	54.00	.1192	.1173
St. Louis, Mo.	2	14	16	54.00	54.00	.1164	.1157
St. Paul, Minn.	2	6	6	53.33	53.33	.1465	.1473
San Antonio, Tex.	2	12	12	53.00	53.00	.0998	.0998
San Francisco, Cal.	2	9	14	51.00	51.00	.1765	.1723
Sioux Falls, S. Dak.	2	6	7	54.00	54.29	.0941	.0899
Topeka, Kans.	2	19	18	54.00	54.00	.0907	.0977
Washington, D. C.	2	13	14	53.69	53.71	.1268	.1278
Wilkes-Barre, Pa.	2	6	6	53.00	53.00	.1053	.1116

PRINTING AND PUBLISHING, NEWSPAPERS.

COMPOSITORS, Male.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Albany, N. Y.	2	10	10	50.40	50.40	\$0.3627	\$0.3627
Atlanta, Ga.	2	15	17	49.60	48.00	.4037	.4265
Baltimore, Md.	4	94	104	50.17	50.19	.4309	.4400
Birmingham, Ala.	2	13	17	54.00	51.88	.4192	.4313
Boston, Mass.	3	236	275	42.00	42.00	.5745	.5743
Buffalo, N. Y.	2	46	48	48.00	48.00	.4525	.4519
Butte, Mont.	2	15	15	45.00	45.00	.7022	.7022
Chicago, Ill.	3	114	117	49.25	49.28	.6070	.6091
Cincinnati, Ohio.	3	55	57	48.00	48.00	.5247	.5253
Cleveland, Ohio.	2	26	24	48.00	48.00	.4960	.4878
Dallas, Tex.	2	16	23	48.00	48.00	.4865	.4920
Denver, Colo.	2	12	13	47.17	47.23	.5664	.5647
Des Moines, Iowa.	2	22	22	48.00	48.00	.3711	.4018
Dubuque, Iowa.	2	3	4	51.00	51.00	.3072	.3088
Duluth, Minn.	2	7	7	48.00	48.00	.4171	.4171
Fall River, Mass.	2	4	4	48.00	48.00	.3125	.3125
Grand Rapids, Mich.	2	19	21	48.21	48.24	.4084	.4095
Harrisburg, Pa.	2	17	17	54.00	54.00	.2516	.2516
Indianapolis, Ind.	2	38	33	48.00	48.00	.4583	.4583
Jacksonville, Fla.	2	6	11	45.00	44.73	.4167	.4935
Jersey City, N. J.	2	27	26	48.00	48.00	.4344	.4383
Little Rock, Ark.	2	19	17	51.95	51.82	.3262	.3491
Los Angeles, Cal.	2	48	39	52.75	52.62	.4599	.5184
Louisville, Ky.	2	12	14	48.42	48.50	.5138	.5029
Lynn, Mass.	2	15	16	47.00	47.00	.4050	.4070
Manchester, N. H.	2	3	6	50.00	50.00	.3009	.3457
Milwaukee, Wis.	2	27	27	48.00	48.00	.4213	.4213
Minneapolis, Minn.	2	39	37	45.90	45.08	.4628	.4635
Montgomery, Ala.	2	6	8	48.00	48.00	.3333	.3521
Nashville, Tenn.	2	21	21	48.00	48.00	.4643	.4643
New Haven, Conn.	2	5	5	50.40	50.40	.4217	.4217
New Orleans, La.	2	53	56	48.45	48.36	.5804	.5804
New York, N. Y. (a)	4	168	223	48.57	48.47	.5765	.5837
Norfolk, Va.	2	5	7	48.00	48.00	.3917	.3780
Omaha, Nebr.	2	16	16	48.00	48.00	.4492	.4492
Peoria, Ill.	2	7	7	56.00	56.00	.3820	.3682
Philadelphia, Pa.	4	88	86	48.91	49.21	.4215	.4196
Pittsburg and Allegheny, Pa.	2	44	42	47.73	47.71	.6091	.6090
Portland, Me.	2	12	14	49.17	49.43	.3381	.3363
Portland, Oreg.	2	29	41	48.00	48.00	.5884	.5899
Providence, R. I.	2	19	19	49.26	49.26	.3905	.3905

* Greater New York.

TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

PRINTING AND PUBLISHING, NEWSPAPERS—Continued.

COMPOSITORS, Male—Concluded.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Richmond, Va.	2	10	12	52.20	52.00	\$0.3646	\$0.3541
Rochester, N. Y.	2	50	56	48.00	48.00	.3833	.4014
St. Louis, Mo.	2	59	63	45.00	45.25	.5442	.5624
St. Paul, Minn.	2	19	22	53.42	50.55	.4097	.4623
Salt Lake City, Utah.	3	11	11	48.55	48.55	.5641	.5641
San Antonio, Tex.	2	10	10	48.90	48.90	.4469	.4563
San Francisco, Cal.	2	17	24	45.00	45.00	.6667	.6667
Scranton, Pa.	2	10	10	48.00	48.00	.4063	.4063
Seattle, Wash.	2	39	44	43.72	43.86	.6011	.6302
Sioux Falls, S. Dak.	2	6	6	48.00	48.00	.3820	.3889
Syracuse, N. Y.	2	32	33	48.00	48.00	.4290	.4299
Tacoma, Wash.	2	12	11	48.00	48.00	.5313	.5313
Tampa, Fla.	2	13	11	48.46	48.55	.2521	.3712
Terre Haute, Ind.	2	16	16	48.00	48.00	.3985	.3985
Toledo, Ohio.	2	24	25	49.88	47.04	.3942	.4149
Topeka, Kans.	2	20	25	48.00	48.00	.4037	.4093
Washington, D. C.	2	57	53	43.32	43.53	.5801	.6046
Wheeling, W. Va.	2	8	8	48.00	48.00	.4536	.4536
Wilmington, Del.	2	11	10	52.36	52.80	.2721	.2764
Worcester, Mass.	2	19	19	48.00	48.00	.4432	.4432

LINOTYPE OPERATORS, Male.

Albany, N. Y.	2	17	18	48.00	48.00	\$0.4241	\$0.4236
Atlanta, Ga.	2	25	24	44.64	45.00	.7383	.7280
Baltimore, Md.	4	82	89	42.44	42.40	.6370	.6389
Birmingham, Ala.	2	11	13	44.73	44.31	.4727	.5000
Boston, Mass.	3	121	132	42.00	42.00	.6103	.6201
Buffalo, N. Y.	2	32	35	48.00	48.00	.4634	.4555
Butte, Mont.	2	11	11	45.00	45.00	.7091	.7091
Charleston, S. C.	2	10	12	48.70	48.67	.5887	.5781
Chicago, Ill.	3	68	71	49.81	49.77	.6899	.6789
Cincinnati, Ohio.	3	57	57	48.00	48.00	.5290	.5285
Cleveland, Ohio.	2	49	46	48.00	48.00	.4932	.5059
Dallas, Tex.	2	20	24	39.90	40.13	.8464	.8781
Denver, Colo.	2	20	22	47.10	46.91	.6095	.6104
Des Moines, Iowa.	2	14	15	48.00	48.00	.3929	.4163
Detroit, Mich.	54	50	47	37.33	47.28	.5642	.5467
Dubuque, Iowa.	12	13	13	48.00	48.00	.3542	.3525
Duluth, Minn.	19	22	22	48.00	48.00	.4279	.4239
Fall River, Mass.	2	9	10	48.00	48.00	.3750	.3750
Grand Rapids, Mich.	2	18	15	48.61	48.47	.4233	.4237
Harrisburg, Pa.	2	11	12	54.00	54.00	.3842	.4193
Indianapolis, Ind.	2	32	56	48.00	48.00	.4583	.4583
Jacksonville, Fla.	2	13	17	42.92	42.00	.6053	.6453
Jersey City, N. J.	2	15	15	48.00	48.00	.4555	.4555
Little Rock, Ark.	2	10	12	45.60	50.92	.6612	.5362
Los Angeles, Cal.	2	26	37	45.92	45.73	.6405	.7050
Louisville, Ky.	2	18	21	48.50	48.52	.4973	.4988
Lynn, Mass.	2	10	12	46.80	46.83	.4128	.4167
Manchester, N. H.	2	7	8	48.00	48.00	.3438	.3516
Milwaukee, Wis.	2	23	23	48.00	48.00	.4552	.4552
Minneapolis, Minn.	2	34	36	42.00	42.00	.5808	.5718
Montgomery, Ala.	2	9	14	43.33	43.29	.6086	.6168
Nashville, Tenn.	2	16	21	48.00	48.00	.4727	.4762
New Haven, Conn.	2	12	13	53.00	53.54	.4045	.4009
New Orleans, La.	2	39	45	46.36	47.78	.6894	.6714
New York, N. Y. (a).	4	192	193	38.58	48.64	.0040	.0083
Norfolk, Va.	2	8	10	48.00	48.00	.3802	.3792
Omaha, Nebr.	2	40	40	48.00	48.00	.4813	.4813
Peoria, Ill.	2	13	14	56.00	56.00	.3912	.3833
Philadelphia, Pa.	4	90	92	46.07	46.04	.5918	.5709
Pittsburgh and Allegheny, Pa.	2	72	63	47.42	47.38	.6081	.6079
Portland, Oreg.	2	30	37	48.00	48.00	.5875	.5875
Providence, R. I.	2	31	31	45.29	45.10	.5292	.5529
Richmond, Va.	2	14	16	51.00	51.00	.4231	.4306
Rochester, N. Y.	2	25	30	48.00	48.00	.4117	.4236
St. Paul, Minn.	2	14	18	53.29	50.33	.4310	.4843
Salt Lake City, Utah.	3	27	24	47.22	47.13	.6264	.6037
San Antonio, Tex.	2	16	17	50.00	49.94	.5070	.5065
San Francisco, Cal.	2	35	37	45.00	45.00	.6086	.6085

(a) Greater New York.

TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

PRINTING AND PUBLISHING, NEWSPAPERS—Concluded.

LINOTYPE OPERATORS, Male—Concluded.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Scranton, Pa.	2	9	10	48.00	48.00	\$0.4213	\$0.4229
Seattle, Wash.	2	32	38	44.88	43.58	.6122	.6393
Sioux Falls, S. Dak.	2	6	6	48.00	48.00	.3959	.3959
Syracuse, N. Y.	2	21	21	48.00	48.00	.4311	.4311
Tacoma, Wash.	2	15	14	48.00	48.00	.5375	.5402
Tampa, Fla.	2	5	5	49.20	49.20	.5611	.7833
Terre Haute, Ind.	2	11	11	48.00	48.00	.3944	.3944
Toledo, Ohio.	2	21	22	49.71	46.64	.3955	.4186
Topeka, Kans.	2	12	12	48.00	48.00	.3959	.3959
Washington, D. C.	2	45	50	43.53	43.56	.5851	.6054
Wheeling, W. Va.	2	18	18	48.00	48.00	.4583	.4583
Worcester, Mass.	2	18	18	48.00	48.00	.4709	.4709

STEREOTYPERS, Male.

Albany, N. Y.	2	2	2	52.00	52.00	\$0.4063	\$0.4063
Atlanta, Ga.	2	10	10	48.00	48.00	.4375	.4375
Baltimore, Md.	2	17	19	41.65	42.32	.4755	.4682
Birmingham, Ala.	2	2	2	51.00	51.00	.3704	.3965
Boston, Mass.	2	50	51	42.00	42.00	.6095	.6088
Buffalo, N. Y.	2	5	5	52.80	52.80	.4107	.4161
Butte, Mont.	2	2	2	56.00	56.00	.5938	.5938
Charleston, S. C.	2	2	2	48.50	48.50	.2566	.2566
Chicago, Ill.	2	30	30	48.00	48.00	.4629	.5052
Cincinnati, Ohio.	2	17	18	50.12	49.00	.3477	.3983
Cleveland, Ohio.	2	10	9	35.60	37.33	.6063	.5938
Dallas, Tex.	2	6	6	42.00	42.00	.3571	.3552
Denver, Colo.	2	7	7	47.43	47.43	.4076	.4076
Des Moines, Iowa.	2	4	4	52.00	52.00	.3578	.3672
Detroit, Mich.	2	12	14	49.00	48.86	.3913	.3979
Duluth, Minn.	2	4	4	48.00	48.00	.3802	.3906
Fall River, Mass.	2	2	2	48.00	48.00	.3646	.3750
Grand Rapids, Mich.	2	3	4	53.00	51.00	.3962	.3944
Harrisburg, Pa.	2	4	4	54.00	54.00	.2408	.2616
Indianapolis, Ind.	2	7	8	48.00	48.00	.4696	.4792
Jacksonville, Fla.	2	2	2	45.50	45.50	.4694	.4694
Little Rock, Ark.	2	2	2	50.50	50.50	.3573	.4442
Los Angeles, Cal.	2	10	6	48.00	48.00	.3720	.4474
Louisville, Ky.	2	4	4	45.50	45.50	.3684	.3694
Milwaukee, Wis.	2	9	9	56.33	56.33	.3651	.3651
Minneapolis, Minn.	2	6	6	54.00	54.00	.2965	.2963
New Haven, Conn.	2	3	3	60.67	60.67	.3678	.3678
New Orleans, La.	2	7	7	53.00	53.00	.3967	.3967
New York, N. Y. (a)	2	67	68	43.66	42.51	.6466	.6580
Norfolk, Va.	2	2	2	48.00	48.00	.2604	.2813
Omaha, Nebr.	2	10	10	55.20	55.20	.3732	.3732
Peoria, Ill.	2	5	5	56.00	56.00	.2500	.2500
Philadelphia, Pa.	2	35	35	46.40	46.40	.4155	.4201
Pittsburg and Allegheny, Pa.	2	9	9	52.33	52.33	.3542	.3542
Portland, Me.	2	3	3	53.00	53.00	.2880	.3403
Portland, Oreg.	2	6	7	49.33	49.14	.4375	.4733
Providence, R. I.	2	13	13	49.00	49.00	.4524	.6058
Richmond, Va.	2	5	5	50.40	50.40	.2560	.2805
Rochester, N. Y.	2	5	6	40.80	40.00	.4159	.4435
St. Louis, Mo.	2	15	15	48.00	45.00	.4451	.4926
Salt Lake City, Utah.	2	3	4	51.50	50.33	.3993	.3947
San Antonio, Tex.	2	3	3	41.33	41.33	.5282	.5157
San Francisco, Cal.	2	12	12	45.00	45.00	.5444	.5444
Scranton, Pa.	2	2	2	55.00	52.00	.2278	.2361
Seattle, Wash.	2	10	12	57.00	53.50	.3828	.3616
Syracuse, N. Y.	2	3	3	44.00	44.00	.5328	.5407
Tacoma, Wash.	2	2	2	52.00	52.00	.5417	.5938
Terre Haute, Ind.	2	2	2	48.50	48.50	.4426	.4426
Toledo, Ohio.	2	7	7	50.14	46.71	.3492	.3750
Topeka, Kans.	2	3	3	48.00	53.33	.5139	.5139
Washington, D. C.	2	7	7	48.00	51.43	.4836	.4857
Wheeling, W. Va.	2	3	3	48.00	48.00	.3472	.3472
Worcester, Mass.	2	4	4	52.00	52.00	.3958	.3958

(a) Greater New York.

TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

STREETS AND SEWERS, CONTRACT WORK.

LABORERS, Male.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Albany, N. Y.	2	116	114	55.08	55.32	\$0.1688	\$0.1672
Atlanta, Ga.	2	138	82	60.00	60.00	.1067	.1181
Baltimore, Md.	2	155	184	48.00	48.00	.1982	.1987
Birmingham, Ala.	2	281	273	60.00	60.00	.1141	.1210
Boston, Mass.	2	367	414	59.72	59.80	.2002	.1998
Buffalo, N. Y.	4	317	279	60.00	60.00	.1532	.1553
Chicago, Ill.	3	1,020	657	56.87	56.77	.2164	.2268
Cincinnati, Ohio	2	118	156	59.31	58.76	.1775	.1827
Cleveland, Ohio.	2	293	298	60.00	60.00	.1788	.1813
Denver, Colo.	2	146	138	54.00	54.00	.2179	.2143
Des Moines, Iowa.	2	225	204	54.00	54.00	.1944	.1944
Detroit, Mich.	2	371	347	60.00	60.00	.1681	.1803
Dubuque, Iowa.	2	31	19	59.00	59.63	.1821	.1788
Duluth, Minn.	2	118	112	60.00	60.00	.1939	.2107
Grand Rapids, Mich.	2	113	107	60.00	60.00	.1750	.1750
Indianapolis, Ind.	2	160	254	58.88	59.22	.1745	.1838
Kansas City, Mo.	2	394	435	55.89	56.03	.1949	.1948
Los Angeles, Cal.	2	59	60	60.00	60.00	.1818	.1958
Louisville, Ky.	2	135	139	59.56	59.57	.1530	.1671
Milwaukee, Wis.	3	295	222	60.00	60.00	.1953	.1938
Mobile, Ala.	2	181	232	60.00	60.00	.1444	.1456
New Haven, Conn.	2	650	490	60.00	60.00	.1513	.1514
New York, N. Y. (a)	3	552	540	59.30	57.64	.1580	.1646
Norfolk, Va.	2	143	111	60.00	60.00	.1262	.1356
Peoria, Ill.	2	166	107	60.00	60.00	.1651	.1750
Philadelphia, Pa.	6	1,283	1,363	60.00	60.00	.1555	.1571
Pittsburg and Allegheny, Pa.	2	189	175	60.00	60.00	.1572	.1552
Portland, Oreg.	2	113	249	59.10	59.33	.2172	.2243
Providence, R. I.	2	539	465	60.00	60.00	.1568	.1576
Racine, Wis.	2	77	91	59.73	59.65	.1808	.1863
Richmond, Va.	2	68	80	59.12	59.13	.1369	.1354
Rochester, N. Y.	2	299	302	48.00	48.00	.2127	.2125
St. Louis, Mo.	3	365	330	60.00	60.00	.2230	.2295
Salt Lake City, Utah.	2	238	230	48.00	48.00	.2590	.2500
San Francisco, Cal.	2	205	230	48.00	48.00	.2866	.2850
Scranton, Pa.	2	50	50	60.00	60.00	.1500	.1500
Seattle, Wash.	2	164	168	49.10	48.00	.2506	.2565
Sioux Falls, S. Dak.	2	52	71	60.00	60.00	.2000	.2000
Syracuse, N. Y.	2	164	138	59.00	59.00	.1657	.1814
Tacoma, Wash.	2	401	348	49.62	50.19	.2557	.2523
Terre Haute, Ind.	2	155	176	55.16	55.23	.1635	.1633
Toledo, Ohio.	2	198	200	53.45	51.00	.2022	.2503
Trenton, N. J.	2	66	80	60.00	60.00	.1500	.1500
Washington, D. C.	2	422	494	54.30	54.46	.1631	.1654
Wheeling, W. Va.	2	20	24	54.00	54.00	.1944	.1944
Wilmington, Del.	2	87	65	55.86	57.42	.1480	.1412

STREETS AND SEWERS, MUNICIPAL WORK.

LABORERS, Male.

Albany, N. Y.	1	95	112	48.00	48.00	\$0.2063	\$0.2063
Atlanta, Ga.	1	50	51	60.00	60.00	.1062	.1128
Augusta, Ga.	1	54	82	60.00	60.00	.1211	.1155
Baltimore, Md.	1	401	360	48.00	48.00	.2083	.2083
Birmingham, Ala.	1	39	33	63.59	63.64	.0846	.0871
Boston, Mass.	1	390	692	44.00	44.00	.2741	.2736
Buffalo, N. Y.	1	201	273	48.00	48.00	.1875	.1875
Butte, Mont.	1	60	62	48.00	48.00	.3750	.3750
Charleston, S. C.	1	86	90	60.00	60.00	.1142	.1156
Chicago, Ill.	1	803	881	55.71	56.09	.1746	.1724
Cincinnati, Ohio.	1	61	88	48.00	48.00	.2188	.2188
Cleveland, Ohio.	1	862	1,111	48.00	48.00	.2039	.2192
Dallas, Tex.	1	10	18	48.00	48.00	.1875	.2188
Denver, Colo.	1	72	104	48.00	48.00	.2500	.2500
Des Moines, Iowa.	1	218	243	48.00	48.00	.2557	.2556
Detroit, Mich.	1	492	299	48.00	48.00	.2188	.2188

(a) Greater New York.

TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Continued.

STREETS AND SEWERS, MUNICIPAL WORK—Concluded.

LABORERS, Male—Concluded.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Dubuque, Iowa.....	1	45	46	54.00	54.00	\$0.1549	\$0.1548
Duluth, Minn.....	1	67	61	48.00	48.00	.2500	.2500
Evansville, Ind.....	1	94	99	48.00	48.00	.1875	.1875
Fall River, Mass.....	1	320	353	48.00	48.00	.2500	.2500
Grand Rapids, Mich.....	1	19	25	60.00	60.00	.1750	.1750
Harrisburg, Pa.....	1	86	94	60.00	60.00	.1500	.1500
Hartford, Conn.....	1	183	167	54.00	54.00	.2106	.2094
Indianapolis, Ind.....	1	277	238	48.00	48.00	.2000	.2000
Jacksonville, Fla.....	1	156	140	54.00	54.00	.1102	.1117
Jersey City, N. J.....	1	84	66	49.00	49.00	.3061	.3061
Kansas City, Mo.....	1	109	116	48.00	48.00	.2188	.2188
Little Rock, Ark.....	1	17	15	60.00	60.00	.1376	.1430
Los Angeles, Cal.....	1	229	229	48.00	48.00	.2500	.2500
Louisville, Ky.....	1	250	267	54.00	54.00	.1667	.1670
Lynn, Mass.....	1	173	202	48.00	48.00	.2500	.2500
Manchester, N. H.....	1	239	227	54.00	54.00	.1667	.1806
Memphis, Tenn.....	1	350	367	48.00	48.00	.1875	.1869
Milwaukee, Wis.....	1	302	308	48.00	48.00	.2189	.2190
Minneapolis, Minn.....	1	2,168	2,177	48.00	48.00	.2313	.2313
Mobile, Ala.....	1	38	42	54.00	54.00	.1667	.1667
Montgomery, Ala.....	1	30	35	60.00	60.00	.0833	.0833
Nashville, Tenn.....	1	160	170	54.00	54.00	.1667	.1667
New Haven, Conn.....	1	158	175	54.00	54.00	.1976	.1984
New York, N. Y. (a).....	1	2,700	2,674	51.00	50.93	.2397	.2452
Norfolk, Va.....	1	74	86	54.00	54.00	.1667	.1667
Omaha, Nebr.....	1	64	67	48.00	48.00	.2200	.2200
Peoria, Ill.....	1	75	45	48.00	48.00	.2000	.2188
Philadelphia, Pa.....	1	698	742	45.33	45.75	.2216	.2162
Pittsburg and Allegheny, Pa.....	1	593	653	48.00	48.00	.2188	.2188
Portland, Me.....	1	90	132	54.00	54.00	.1833	.1944
Portland, Oreg.....	1	77	67	48.00	48.00	.2557	.2589
Providence, R. I.....	1	349	370	60.00	60.00	.1549	.1588
Racine, Wis.....	1	12	16	54.00	54.00	.1713	.1806
Richmond, Va.....	1	92	97	56.00	56.00	.1828	.1869
Rochester, N. Y.....	1	505	421	48.00	48.00	.1907	.1911
St. Louis, Mo.....	1	964	1,330	48.00	48.00	.1875	.1875
St. Paul, Minn.....	1	140	171	48.00	48.00	.2000	.2000
Salt Lake City, Utah.....	1	60	62	48.00	48.00	.2500	.2500
San Antonio, Tex.....	1	49	66	48.00	48.00	.1875	.1875
San Francisco, Cal.....	1	45	48	48.00	48.00	.3125	.3125
Scranton, Pa.....	1	114	140	48.00	48.00	.1875	.1875
Seattle, Wash.....	1	113	125	48.00	48.00	.2813	.2813
Sioux Falls, S. Dak.....	1	45	41	48.00	48.00	.2000	.2000
Syracuse, N. Y.....	1	277	268	48.00	48.00	.1908	.1902
Tacoma, Wash.....	1	148	213	48.00	48.00	.2288	.2298
Terre Haute, Ind.....	1	75	83	48.00	48.00	.2000	.2000
Toledo, Ohio.....	1	236	242	48.00	48.00	.1875	.1875
Topeka, Kans.....	1	54	60	48.00	48.00	.2000	.2000
Trenton, N. J.....	1	76	87	60.00	60.00	.1500	.1500
Washington, D. C.....	1	792	1,214	48.00	48.00	.1922	.1947
Wheeling, W. Va.....	1	38	43	54.00	54.00	.1944	.1944
Wilkes-Barre, Pa.....	1	47	73	48.00	48.00	.1875	.1875
Wilmington, Del.....	1	170	198	48.00	48.00	.1901	.1875
Worcester, Mass.....	1	330	348	48.00	48.00	.2353	.2332

TOBACCO, CIGARS.

CIGAR MAKERS, Male.

Boston, Mass.	3	244	275	45.75	45.70	\$0.4167	\$0.4297
Chicago, Ill.	2	81	78	48.00	48.00	.3365	.3460
Cleveland, Ohio	2	34	28	44.00	44.00	.2928	.2629
Detroit, Mich.	2	27	35	45.19	45.37	.3229	.3194
Indianapolis, Ind.	2	30	37	45.67	45.78	.3398	.3009
New York, N. Y. (a)	5	132	143	47.66	47.85	.3189	.3219
Philadelphia, Pa.	2	241	225	53.42	53.41	.2412	.2496
Tampa, Fla.	5	1,703	1,972	60.00	60.00	.2949	.2908

a Greater New York.

TABLE IV.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY CITIES—Concluded.

TOBACCO, CIGARS—Concluded.

STEMMERS, Female.

Locality.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Baltimore, Md.	2	26	53	50.62	52.98	\$0.0775	\$0.0769
Boston, Mass.	3	55	61	46.04	45.89	.1457	.1429
Chicago, Ill.	2	33	37	48.00	48.00	.1269	.1325
Cincinnati, Ohio.	3	82	79	53.02	53.05	.1104	.1186
Cleveland, Ohio.	2	7	6	44.00	44.00	.1241	.1269
Detroit, Mich.	3	79	107	55.04	52.98	.0954	.0708
Milwaukee, Wis.	2	21	24	49.81	49.83	.0823	.0916
New York, N. Y. (a)	7	476	472	56.48	56.60	.1006	.1005
Philadelphia, Pa.	2	29	43	48.62	47.56	.0923	.0974
Pittsburg and Allegheny, Pa.	3	84	91	48.02	48.95	.1243	.1187
Rochester, N. Y.	2	7	9	52.71	52.89	.0982	.0919
Tampa, Fla.	5	163	153	60.00	60.00	.1326	.1398

(a) Greater New York.

TABLE V.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY STATES.

AGRICULTURAL IMPLEMENTS.

MACHINE WOODWORKERS, Male.

State.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
California.	2	8	8	54.00	54.00	\$0.3038	\$0.3161
Illinois.	7	241	357	58.66	58.61	.2363	.2435
Kentucky.	2	36	33	59.89	59.88	.2346	.2510
New York.	3	63	61	59.83	59.84	.2093	.2030
Ohio.	3	37	38	58.59	58.53	.1919	.2011
Wisconsin.	3	49	48	56.88	56.83	.2157	.2034

MACHINISTS, Male.

California.	2	29	34	54.00	54.00	\$0.3146	\$0.3034
Illinois.	7	745	677	58.46	58.42	.2676	.2788
New York.	3	326	324	59.96	59.96	.2402	.2207
Ohio.	3	76	73	58.93	58.60	.1972	.1974
Wisconsin.	3	120	367	57.83	56.04	.2816	.2616

MOLDERS, IRON, Male.

California.	2	20	13	54.00	54.00	\$0.3583	\$0.3718
Illinois.	7	933	1,239	58.31	58.42	.2404	.2313
Kentucky.	2	59	43	59.84	59.81	.2575	.2527
New York.	3	279	262	59.90	59.90	.2412	.2426
Ohio.	2	91	86	58.95	58.92	.3429	.3246
Wisconsin.	3	135	149	58.96	57.73	.3310	.3302

PAINTERS, Male.

California.	2	4	6	54.00	54.00	\$0.3234	\$0.3063
Illinois.	7	435	470	58.75	58.71	.2300	.2453
Kentucky.	2	32	32	59.91	59.91	.2984	.3211
New York.	3	54	62	59.93	59.92	.2357	.2330
Ohio.	3	33	28	58.76	58.61	.2924	.2908
Wisconsin.	3	55	104	58.27	55.64	.2796	.2589

TABLE V.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY STATES—Continued.

BOOTS AND SHOES.

CLOSERS-ON, Female.

State.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Illinois.....	3	10	8	55.00	55.00	\$0.1988	\$0.1964
Maine.....	3	14	12	58.64	58.67	.1643	.1802
Massachusetts.....	15	74	70	55.74	55.50	.2022	.2054
Minnesota.....	2	22	19	54.00	54.00	.1893	.1810
Missouri.....	3	35	35	58.20	58.09	.1422	.1560
New Hampshire.....	3	29	33	59.48	59.52	.1583	.1794
New York.....	6	18	18	54.50	54.28	.1902	.1906
Ohio.....	4	32	23	59.63	59.65	.1581	.1487
Pennsylvania.....	3	13	12	58.38	58.42	.1367	.1279
Wisconsin.....	2	13	11	59.31	59.45	.1376	.1451

CUTTERS, OUTSOLE, Male.

Illinois.....	3	25	21	55.00	55.00	\$0.2645	\$0.2542
Maine.....	2	14	14	59.00	59.00	.2143	.2232
Massachusetts.....	13	56	62	56.27	55.85	.2748	.2804
Minnesota.....	2	7	14	59.29	59.14	.2385	.2228
Missouri.....	2	28	26	58.43	58.62	.2008	.2360
New Hampshire.....	3	20	21	59.25	59.29	.2166	.2306
Ohio.....	4	18	17	60.00	59.82	.2417	.2448
Pennsylvania.....	3	9	9	58.33	58.33	.2159	.2224
Wisconsin.....	2	10	11	59.30	59.27	.2420	.2431

CUTTERS, UPPER, Male.

Illinois.....	4	128	113	55.00	55.00	\$0.2674	\$0.2751
Maine.....	3	60	72	58.77	58.76	.2266	.2487
Massachusetts.....	15	677	712	55.48	55.03	.2852	.2910
Minnesota.....	2	66	64	59.52	59.50	.2478	.2517
Missouri.....	3	220	254	58.40	58.40	.2529	.2592
New Hampshire.....	3	117	129	59.34	59.34	.2329	.2458
New York.....	6	84	82	55.76	55.59	.3060	.3139
Ohio.....	4	118	115	60.00	59.57	.3041	.3288
Pennsylvania.....	3	74	81	58.26	58.25	.2642	.2607
Wisconsin.....	2	40	40	59.70	59.73	.2483	.2499

EDGE TRIMMERS, Male.

Illinois.....	4	26	34	55.00	55.00	\$0.4006	\$0.4030
Maine.....	3	14	13	58.64	58.62	.2882	.2902
Massachusetts.....	15	166	181	55.27	55.26	.3660	.3661
Minnesota.....	2	10	9	59.40	59.44	.2726	.2729
Missouri.....	3	45	46	58.24	58.26	.3471	.3693
New Hampshire.....	3	28	29	59.54	59.52	.2711	.2700
New York.....	6	17	16	54.76	54.50	.4092	.4324
Ohio.....	4	25	28	60.00	59.86	.2866	.3202
Pennsylvania.....	3	14	14	58.36	58.43	.3277	.3220
Wisconsin.....	2	6	7	59.50	59.57	.2904	.2944

GOODYEAR STITCHERS, Male.

Illinois.....	4	27	28	55.00	55.00	\$0.5453	\$0.4940
Maine.....	3	4	6	58.25	58.83	.3241	.3199
Massachusetts.....	12	118	133	54.58	54.91	.4365	.4406
Minnesota.....	2	9	11	59.33	59.45	.2818	.2931
Missouri.....	3	48	54	58.50	58.48	.3433	.3297
New York.....	6	17	19	56.18	55.95	.3408	.3357
Ohio.....	4	15	19	60.00	59.84	.3401	.3576
Pennsylvania.....	3	11	12	58.09	58.08	.2646	.2712
Wisconsin.....	2	4	5	59.50	59.60	.3110	.3690

TABLE V.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY STATES—Continued.

BOOTS AND SHOES—Concluded.

LASTERS, MACHINE, Male.

State.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Illinois.....	4	130	151	55.00	55.00	\$0.3251	\$0.2847
Maine.....	3	43	54	58.88	58.03	.2244	.2434
Massachusetts.....	14	256	277	55.83	55.78	.3317	.3544
Minnesota.....	2	9	11	58.89	59.09	.2697	.2674
Missouri.....	3	74	76	58.30	58.32	.3217	.3003
New Hampshire.....	3	100	109	59.31	59.28	.2106	.2320
New York.....	6	27	26	54.59	54.50	.3082	.3438
Ohio.....	4	35	45	60.00	59.93	.3050	.3230
Pennsylvania.....	3	67	71	58.09	58.08	.2002	.2267
Wisconsin.....	2	16	18	59.31	59.39	.2909	.2963

TREES, Male.

Illinois.....	4	49	53	55.00	55.00	\$0.2993	\$0.3019
Maine.....	3	16	14	58.69	58.64	.2302	.2468
Massachusetts.....	13	286	324	55.00	54.98	.2685	.2774
Minnesota.....	2	10	11	59.40	59.36	.1969	.1935
Missouri.....	3	30	42	58.60	58.57	.2021	.2117
New Hampshire.....	2	53	64	59.66	59.69	.1627	.1611
Ohio.....	2	9	10	60.00	60.00	.1863	.1902
Pennsylvania.....	2	8	7	58.00	58.00	.2483	.2247
Wisconsin.....	2	15	14	59.67	59.71	.1955	.2022

VAMPERS, Female.

Illinois.....	4	64	53	55.00	55.00	\$0.2161	\$0.2206
Maine.....	3	20	19	58.75	58.74	.2114	.2146
Massachusetts.....	16	258	260	55.50	55.72	.2322	.2391
Minnesota.....	2	22	29	54.00	54.00	.1854	.2020
Missouri.....	3	82	91	58.17	58.32	.2210	.2261
New Hampshire.....	3	39	46	59.38	59.43	.2084	.2098
New York.....	6	34	36	54.68	54.64	.1873	.2048
Ohio.....	4	69	47	59.48	59.77	.1743	.1834
Pennsylvania.....	3	37	35	58.24	58.26	.1593	.1788
Wisconsin.....	2	11	12	59.45	59.50	.1741	.1926

CARS, STEAM RAILROAD.

BLACKSMITHS, Male.

California.....	3	167	111	54.00	54.00	\$0.3443	\$0.3528
Illinois.....	6	154	208	54.19	53.48	.3651	.3360
Indiana.....	4	38	61	59.39	58.90	.2765	.2639
Maryland.....	2	85	92	60.00	56.30	.2515	.2624
Minnesota.....	2	50	48	56.90	55.13	.3110	.3133
Missouri.....	3	69	87	57.72	57.66	.2555	.2346
New York.....	3	75	93	55.92	54.92	.2425	.2529
Ohio.....	3	87	96	56.30	56.35	.2566	.2584
Pennsylvania.....	2	143	177	56.96	57.03	.4111	.3540
Tennessee.....	2	14	15	60.00	60.00	.2521	.2663
Texas.....	2	47	54	59.72	59.70	.3903	.3506
Virginia.....	2	32	31	56.97	59.42	.2770	.2779

BOILER MAKERS, Male.

California.....	2	111	120	54.00	54.00	\$0.3833	\$0.3850
Illinois.....	6	161	167	55.22	54.04	.3374	.3385
Indiana.....	3	71	88	59.79	56.83	.2907	.2930
Maryland.....	2	84	100	60.00	56.70	.2446	.2481
Missouri.....	2	32	21	55.91	54.67	.3378	.3407
New York.....	2	93	87	55.81	56.48	.2527	.2626
Ohio.....	2	48	48	55.25	55.38	.2907	.2891
Texas.....	2	37	40	59.81	59.83	.3592	.3559

TABLE V.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY STATES—Continued.

CARS, STEAM RAILROAD—Continued.

CABINETMAKERS, Male.

State.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Delaware.....	2	43	40	54.00	54.00	\$0.2702	\$0.2700
Illinois.....	3	695	373	53.91	54.15	.3503	.3116
Maryland.....	2	29	51	60.00	55.78	.2280	.2202
Minnesota.....	2	19	15	57.42	57.40	.2552	.2567
Missouri.....	2	33	27	59.00	59.00	.2421	.2441
Ohio.....	2	150	106	56.85	56.26	.2574	.2774

CARPENTERS, Male.

California.....	3	243	223	54.00	54.00	\$0.2710	\$0.2723
Delaware.....	2	109	114	54.00	54.00	.2799	.2703
Illinois.....	6	1,033	1,886	54.25	54.90	.3074	.2922
Indiana.....	4	166	211	58.85	50.45	.2520	.2538
Maryland.....	2	71	185	60.00	55.38	.2112	.2013
Minnesota.....	2	136	133	57.35	57.24	.2310	.2306
Missouri.....	3	383	364	58.02	57.52	.2149	.2224
New York.....	3	328	395	55.70	53.81	.2286	.2444
Ohio.....	2	129	109	54.23	54.44	.2265	.2204
Pennsylvania.....	2	280	343	57.20	57.39	.2071	.2796
Tennessee.....	2	75	113	60.00	60.00	.1972	.1898
Texas.....	2	124	116	59.78	56.81	.2906	.2895
Virginia.....	2	237	255	57.12	59.43	.2172	.2161

LABORERS, Male.

California.....	3	553	462	54.00	54.00	\$0.2028	\$0.2024
Delaware.....	2	154	151	54.00	54.00	.1453	.1428
Illinois.....	6	1,675	3,295	53.39	54.31	.1654	.1684
Indiana.....	4	240	260	59.37	58.94	.1430	.1458
Maryland.....	2	323	957	60.00	55.91	.1394	.1477
New York.....	3	238	369	54.91	54.29	.1433	.1427
Ohio.....	2	246	204	55.12	55.47	.1437	.1412
Pennsylvania.....	2	980	1,379	56.15	56.46	.1376	.1362
Tennessee.....	2	174	119	64.02	60.38	.1115	.1124
Texas.....	2	459	471	59.74	59.75	.1426	.1419

MACHINE WOODWORKERS, Male.

Delaware.....	2	77	84	54.00	54.00	\$0.2703	\$0.2710
Illinois.....	6	260	283	53.62	54.19	.2716	.2623
Indiana.....	3	26	35	58.65	59.94	.2346	.2264
Minnesota.....	2	23	27	57.83	57.56	.2212	.2153
Missouri.....	2	80	86	59.00	59.00	.1970	.2016
New York.....	3	46	50	56.22	53.80	.2236	.2282
Ohio.....	3	134	170	57.21	57.26	.2035	.2124
Pennsylvania.....	2	67	67	56.87	56.57	.2520	.2513
Tennessee.....	2	10	11	60.00	60.00	.2000	.2086
Texas.....	2	24	23	59.75	57.17	.2691	.2717
Virginia.....	2	19	19	56.89	59.47	.2211	.2208

MACHINISTS, Male.

California.....	3	390	478	54.00	54.00	\$0.3566	\$0.3575
Delaware.....	2	18	22	54.00	54.00	.2490	.2600
Illinois.....	6	875	1,082	53.63	53.04	.3277	.3216
Indiana.....	3	195	222	59.83	57.27	.2877	.2909
Maryland.....	2	411	510	60.00	56.04	.2560	.2694
Minnesota.....	2	208	233	57.02	53.45	.3433	.3444
Missouri.....	3	194	206	57.30	55.46	.2850	.2839
New York.....	3	299	316	55.71	55.62	.2469	.2532
Ohio.....	3	310	271	55.45	55.71	.2640	.2573
Pennsylvania.....	2	546	677	55.71	55.55	.3387	.3396
Tennessee.....	2	59	73	60.00	60.00	.2870	.2880
Texas.....	2	125	130	59.81	56.50	.3504	.3527
Virginia.....	2	137	134	56.25	56.53	.2835	.2844

TABLE V.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY STATES—Continued.

CARS, STEAM RAILROAD—Concluded.

PAINTERS, Male.

State.	Num- ber of estab- lish- ments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
California.....	3	73	83	54.00	54.00	\$0.2870	\$0.2893
Delaware.....	3	49	66	54.00	54.00	.3001	.2852
Illinois.....	6	411	423	53.50	54.32	.2928	.2692
Indiana.....	4	28	38	50.43	58.53	.2344	.2277
Maryland.....	2	93	89	60.00	56.97	.2093	.2077
Minnesota.....	2	88	98	57.47	57.19	.2318	.2271
Missouri.....	3	98	111	58.44	57.91	.2075	.2164
New York.....	3	114	131	54.47	51.18	.3126	.3658
Ohio.....	3	194	222	56.74	56.83	.2201	.2437
Pennsylvania.....	2	141	144	57.48	57.60	.3044	.3283
Texas.....	2	47	43	59.81	57.74	.2784	.2812
Virginia.....	2	49	54	56.76	59.32	.2167	.2076

UPHOLSTERERS, Male.

Delaware.....	2	10	38	54.00	54.00	\$0.3152	\$0.3015
Illinois.....	3	218	85	53.83	54.12	.3464	.3039
Indiana.....	2	4	3	59.75	59.67	.2152	.2224
Maryland.....	2	18	23	60.00	55.65	.2185	.2119
Minnesota.....	2	15	16	57.00	56.75	.2293	.2225
Missouri.....	2	14	14	59.00	59.00	.2390	.2326
Ohio.....	2	40	44	57.40	57.36	.2443	.2618
Texas.....	2	4	6	59.75	55.67	.2875	.2958
Virginia.....	2	5	8	55.00	59.75	.2220	.2175

COTTON GOODS.

CARDING-MACHINE TENDERS, Male.

Alabama.....	2	7	7	64.71	64.71	\$0.0756	\$0.0763
Georgia.....	5	38	41	66.00	66.00	.0776	.0820
Maine.....	3	33	33	60.00	60.00	.1130	.1130
Massachusetts.....	6	121	120	58.60	58.00	.1204	.1196
New Hampshire.....	3	64	71	60.00	60.00	.1073	.1125
North Carolina.....	2	10	10	66.00	66.00	.0805	.0967
Pennsylvania.....	3	19	20	60.00	60.00	.1186	.1196
Rhode Island.....	2	27	26	58.00	58.00	.1192	.1258
South Carolina.....	2	38	43	66.00	66.00	.0675	.0729

LOOM FIXERS, Male.

Alabama.....	2	23	23	65.48	65.48	\$0.1415	\$0.1423
Georgia.....	5	52	57	66.00	66.00	.1370	.1371
Maine.....	3	70	68	60.00	60.00	.1981	.1942
Massachusetts.....	6	179	183	58.00	58.00	.2191	.2166
New Hampshire.....	3	222	225	60.00	60.00	.1584	.1583
North Carolina.....	2	22	21	66.00	66.00	.1518	.1477
Pennsylvania.....	2	18	18	60.00	60.00	.1613	.1620
Rhode Island.....	2	83	67	58.00	58.00	.2037	.2062
South Carolina.....	2	52	52	66.00	66.00	.1290	.1320

SPINNERS, FRAME, Female.

Alabama.....	2	139	175	65.12	65.33	\$0.0437	\$0.0462
Georgia.....	5	263	239	66.00	66.00	.0632	.0731
Maine.....	3	196	245	60.00	60.00	.0953	.0941
Massachusetts.....	6	1,003	1,096	58.00	58.00	.1606	.1655
New Hampshire.....	3	630	599	60.00	60.00	.0954	.0966
North Carolina.....	2	73	65	66.00	66.00	.0579	.0729
Pennsylvania.....	2	54	54	60.00	60.00	.0946	.0972
Rhode Island.....	2	138	116	58.00	58.00	.0953	.0953
South Carolina.....	2	217	228	66.00	66.00	.0595	.0746

TABLE V.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY STATES—Continued.

COTTON GOODS—Concluded.

SPINNERS, MULE, Male.

State.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Maine.....	3	38	31	60.00	60.00	\$0.2010	\$0.2060
Massachusetts.....	3	48	46	58.21	58.00	.1902	.2026
New Hampshire.....	2	63	62	60.00	60.00	.1908	.1920
Pennsylvania.....	2	10	11	60.00	60.00	.2283	.2248
Rhode Island.....	2	45	44	58.00	58.00	.1965	.1913

WEAVERS, Male.

Alabama.....	2	166	146	65.71	65.84	\$0.0847	\$0.0940
Georgia.....	5	202	274	66.00	66.00	.1138	.1085
Maine.....	3	206	197	60.00	60.00	.1421	.1581
Massachusetts.....	6	863	895	58.00	58.00	.1646	.1646
New Hampshire.....	3	896	908	60.00	60.00	.1579	.1583
North Carolina.....	2	177	104	66.00	66.00	.1013	.1101
Pennsylvania.....	2	49	61	60.00	60.00	.1214	.1276
Rhode Island.....	2	328	309	58.00	58.00	.1431	.1475
South Carolina.....	2	199	240	66.00	66.00	.1015	.1056

WEAVERS, Female.

Alabama.....	2	212	235	65.09	64.98	\$0.0776	\$0.0814
Georgia.....	5	506	497	66.00	66.00	.0941	.0937
Maine.....	3	563	574	60.00	60.00	.1331	.1348
Massachusetts.....	6	2,065	1,980	58.00	58.00	.1489	.1478
New Hampshire.....	3	1,652	1,756	60.00	60.00	.1518	.1508
North Carolina.....	2	84	56	66.00	66.00	.0929	.0919
Pennsylvania.....	2	227	220	60.00	60.00	.1248	.1323
Rhode Island.....	2	488	428	58.00	58.00	.1368	.1355
South Carolina.....	2	90	89	66.00	66.00	.0773	.0946

DYEING, FINISHING, AND PRINTING TEXTILES.

BLEACHERS, Male.

Massachusetts.....	4	102	96	58.00	58.00	\$0.1170	\$0.1179
New Jersey.....	3	36	38	58.08	57.97	.1392	.1424
Pennsylvania.....	2	10	11	60.00	60.00	.1558	.1538
Rhode Island.....	5	164	249	59.61	59.57	.1169	.1178

CALENDREERS, Male.

Massachusetts.....	4	22	21	57.55	58.00	\$0.1331	\$0.1332
New Jersey.....	3	37	38	58.05	58.13	.1603	.1602
Pennsylvania.....	2	20	24	60.00	60.00	.1492	.1509
Rhode Island.....	5	131	172	59.11	59.27	.1415	.1390

DYERS, Male.

Massachusetts.....	4	158	133	58.00	58.00	\$0.1285	\$0.1291
Pennsylvania.....	4	104	105	60.00	60.00	.1776	.1772
Rhode Island.....	5	154	173	59.61	59.48	.1353	.1364

PRINTERS, Male.

Massachusetts.....	3	40	40	58.00	58.00	\$0.4446	\$0.4451
New Jersey.....	2	17	16	59.35	59.38	.3718	.3654
Pennsylvania.....	2	15	17	60.00	60.00	.4600	.4618
Rhode Island.....	3	26	28	58.46	57.14	.4977	.4787

TABLE V.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY STATES—Continued.

HATS, FUR.

FINISHERS, Male.

State.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
New Jersey.....	4	281	278	50.27	50.31	\$0.3258	\$0.3470
New York.....	2	195	160	58.59	58.53	.2716	.3025
Pennsylvania.....	5	348	376	54.97	54.97	.2888	.2880

SIZERS, Male.

New Jersey.....	4	306	350	50.25	50.23	\$0.3028	\$0.3041
New York.....	2	206	202	57.95	57.97	.2555	.2607
Pennsylvania.....	5	457	509	55.10	54.86	.2742	.2541

TRIMMERS, Female.

Connecticut.....	2	48	45	50.63	50.44	\$0.1376	\$0.1764
New Jersey.....	4	206	230	50.39	50.41	.1570	.1803
New York.....	2	347	351	57.78	57.72	.1328	.1464
Pennsylvania.....	5	488	531	54.80	54.66	.1146	.1152

HOSIERY AND KNIT GOODS.

FINISHERS, Female.

New York.....	7	418	433	58.04	57.73	\$0.1235	\$0.1263
Pennsylvania.....	3	80	89	60.00	60.00	.1084	.1148
Wisconsin.....	2	129	140	59.53	59.52	.0775	.0787

KNITTERS, Female.

Massachusetts.....	2	4	63	58.00	58.00	\$0.1327	\$0.1308
New York.....	5	76	102	57.89	57.27	.1278	.1377
Pennsylvania.....	3	141	204	60.00	60.00	.1194	.1359
Wisconsin.....	2	160	152	59.90	59.92	.0837	.0928

LEATHER.

FLESHERS, Male.

Illinois.....	3	10	11	54.90	59.18	\$0.2170	\$0.1962
Kentucky.....	4	9	9	58.33	58.33	.2124	.2155
Massachusetts.....	3	15	21	59.00	59.00	.1785	.1824
Michigan.....	2	13	9	56.31	55.89	.1901	.1986
New Jersey.....	5	54	64	59.13	59.27	.1667	.1654
New York.....	4	17	17	59.53	59.53	.1749	.1766
Ohio.....	2	7	8	57.43	57.75	.2040	.2095
Pennsylvania.....	10	138	129	58.51	59.12	.2106	.1969
Virginia.....	6	34	34	59.91	59.91	.1459	.1483
Wisconsin.....	4	39	40	59.90	59.90	.1879	.1948

GLAZERS, Male.

Delaware.....	2	72	72	60.00	60.00	\$0.1796	\$0.1823
Illinois.....	2	18	18	55.39	59.67	.1571	.1569
Massachusetts.....	4	106	111	59.00	59.00	.1668	.1670
New Jersey.....	2	11	5	58.09	55.89	.1998	.2365
New York.....	5	27	27	55.96	55.96	.1602	.1777
Pennsylvania.....	4	451	457	59.36	59.32	.1831	.1805

TABLE V.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY STATES—Continued.

LEATHER—Concluded.

LINERS, Male.

State.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
California.....	2	6	6	57.83	57.83	\$0.2076	\$0.2076
Delaware.....	2	8	17	60.00	60.00	.1521	.1667
Illinois.....	3	29	26	56.21	59.46	.1886	.1799
Kentucky.....	4	24	23	59.42	59.39	.1265	.1292
Massachusetts.....	3	70	80	59.00	59.00	.1624	.1627
Michigan.....	2	8	7	58.50	58.29	.1731	.1765
New Jersey.....	4	10	10	56.20	56.20	.2305	.2332
New York.....	6	33	28	57.94	57.57	.1691	.1751
Ohio.....	2	4	4	57.00	57.00	.1878	.1852
Pennsylvania.....	5	102	103	58.02	57.87	.1958	.1967
Virginia.....	4	21	21	59.81	59.81	.1220	.1231
Wisconsin.....	5	101	103	59.94	59.92	.1655	.1673

SETTERS OUT, Male.

California.....	2	5	6	57.00	57.00	\$0.2456	\$0.2456
Delaware.....	2	15	13	60.00	60.00	.1656	.1359
Illinois.....	2	34	15	55.03	59.47	.2026	.2054
Massachusetts.....	4	46	52	59.00	59.00	.1500	.1631
New Jersey.....	3	51	47	59.37	59.28	.1582	.1637
New York.....	5	52	54	58.48	58.54	.1846	.1896
Ohio.....	3	25	26	56.40	56.31	.2378	.2464
Pennsylvania.....	4	40	47	59.10	59.09	.1813	.1812
Wisconsin.....	4	72	77	59.93	59.91	.1929	.2095

STAKERS, Male.

Delaware.....	2	31	43	60.00	60.00	\$0.1893	\$0.1776
Illinois.....	3	52	44	56.46	59.48	.1764	.1703
Massachusetts.....	4	57	66	59.00	59.00	.1757	.1769
New York.....	3	22	22	54.18	54.18	.1790	.1790
Pennsylvania.....	5	243	266	59.47	59.43	.2257	.2248

TANYARD HANDS, Male.

California.....	2	6	9	57.50	57.33	\$0.2258	\$0.2110
Delaware.....	2	37	46	60.00	60.00	.1281	.1346
Illinois.....	3	43	33	55.74	58.33	.1803	.1772
Kentucky.....	3	36	35	59.67	59.66	.1216	.1228
Massachusetts.....	3	63	70	59.00	59.00	.1606	.1588
New Jersey.....	5	89	85	58.42	58.34	.1588	.1606
New York.....	5	60	70	58.83	59.00	.1537	.1505
Ohio.....	3	41	46	57.07	56.74	.1698	.1760
Pennsylvania.....	10	168	196	58.97	59.00	.1578	.1610
Virginia.....	6	163	168	59.96	59.96	.1224	.1257
Wisconsin.....	4	180	192	60.00	60.00	.1785	.1801

UNHAIRERS, Male.

California.....	2	14	14	57.00	57.00	\$0.2343	\$0.2337
Delaware.....	2	33	61	60.00	60.00	.1727	.1716
Illinois.....	3	30	33	55.87	58.36	.2141	.2049
Kentucky.....	2	16	13	60.00	60.00	.1326	.1340
Massachusetts.....	2	22	26	59.00	59.00	.1695	.1695
New Jersey.....	3	20	23	58.00	58.26	.1996	.2076
New York.....	6	35	34	58.26	58.21	.1631	.1634
Ohio.....	2	5	5	56.40	56.40	.2089	.2089
Pennsylvania.....	8	68	69	58.37	58.59	.2082	.2401
Virginia.....	6	62	60	59.98	59.98	.1326	.1342
Wisconsin.....	3	43	43	60.00	60.00	.1852	.1980

TABLE V.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY STATES—Continued.

LUMBER.

CHOPPERS AND SAWYERS IN WOODS, Male.

State.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Arkansas.....	3	36	40	66.00	66.00	\$0.1742	\$0.1818
California.....	3	147	148	66.00	66.00	.2684	.2621
Florida.....	4	80	89	60.45	60.40	.1436	.1387
Georgia.....	2	18	18	51.33	51.33	.1642	.1642
Michigan.....	5	203	216	61.94	61.94	.1595	.1600
Minnesota.....	3	1,105	1,142	60.00	60.00	.1709	.1889
Missouri.....	2	81	101	60.00	60.00	.1753	.1767
Washington.....	2	73	75	63.29	63.12	.2598	.2614
Wisconsin.....	5	284	295	60.00	60.00	.1750	.1749

LABORERS, Male.

Alabama.....	3	127	127	60.00	60.00	\$0.1185	\$0.1358
Arkansas.....	5	488	492	65.51	65.52	.1429	.1450
California.....	2	150	180	60.00	60.00	.1985	.1987
Florida.....	5	332	330	61.80	61.94	.1225	.1249
Georgia.....	2	56	56	64.50	64.50	.0985	.0996
Indiana.....	2	52	66	60.00	60.00	.1442	.1439
Iowa.....	4	395	434	61.26	61.35	.1587	.1607
Louisiana.....	5	532	543	64.62	64.86	.1368	.1361
Maine.....	2	74	92	60.00	60.00	.1568	.1652
Michigan.....	5	225	291	60.00	60.00	.1593	.1613
Minnesota.....	4	440	479	60.00	60.00	.1892	.1970
Missouri.....	3	326	397	59.62	59.54	.1458	.1523
Ohio.....	2	130	168	60.00	60.00	.1650	.1692
Oregon.....	2	393	454	60.00	60.00	.2033	.2135
Pennsylvania.....	3	48	49	58.54	58.57	.1808	.1812
South Carolina.....	2	72	78	62.29	62.31	.0747	.0875
Tennessee.....	2	450	410	60.00	60.00	.1269	.1271
Washington.....	4	710	884	60.00	60.00	.1772	.1791
Wisconsin.....	6	758	792	60.00	60.00	.1561	.1580

PAPER AND WOOD PULP.

BEATERS, Male.

Maine.....	2	125	155	55.42	53.99	\$0.2074	\$0.2128
Massachusetts.....	5	134	134	56.82	57.17	.1689	.1696
Michigan.....	2	28	28	60.00	60.00	.1827	.1827
New York.....	6	93	75	57.87	58.97	.1725	.1597
Ohio.....	2	32	30	71.47	71.40	.1386	.1397
Pennsylvania.....	3	51	53	72.00	72.00	.1575	.1569
Wisconsin.....	4	64	66	72.00	72.00	.1414	.1484

CALENDREERS, Male.

Massachusetts.....	3	28	28	66.79	66.79	\$0.1725	\$0.1725
Michigan.....	3	22	22	60.00	60.00	.1936	.1970
Pennsylvania.....	3	29	35	60.62	65.31	.1696	.1636
Wisconsin.....	4	32	31	66.75	66.19	.1412	.1537

LABORERS, Male.

Maine.....	3	204	236	55.12	55.63	\$0.1734	\$0.1788
Massachusetts.....	5	90	111	58.92	58.91	.1549	.1548
Michigan.....	3	49	55	60.00	60.00	.1500	.1500
New York.....	6	319	286	59.97	59.96	.1469	.1465
Ohio.....	2	98	84	59.60	59.62	.1417	.1418
Pennsylvania.....	2	347	404	64.56	63.86	.1434	.1480
Wisconsin.....	4	123	111	58.83	61.95	.1554	.1496

TABLE V.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY STATES—Continued.

PAPER AND WOOD PULP—Concluded.

MACHINE TENDERS, Male.

State.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Maine.....	3	68	69	53.71	53.45	\$0.3007	\$0.3088
Massachusetts.....	5	76	72	57.16	58.63	.2115	.2242
Michigan.....	2	10	10	60.00	60.00	.3250	.3250
New York.....	5	35	32	61.00	68.75	.3312	.3068
Ohio.....	2	12	14	71.67	71.57	.2191	.2344
Pennsylvania.....	3	33	33	72.00	72.00	.2631	.2757
Wisconsin.....	4	24	24	72.00	72.00	.2555	.2685

RAG SORTERS, Female.

Massachusetts.....	4	159	192	53.53	54.31	\$0.1056	\$0.0974
Wisconsin.....	3	47	49	60.00	60.00	.0870	.0923

SHIPBUILDING.

BLACKSMITHS, Male.

California.....	2	51	41	54.00	54.00	\$0.3504	\$0.3448
Delaware.....	2	16	22	54.00	54.00	.2580	.2523
Maine.....	3	25	16	55.64	55.75	.2980	.2656
Maryland.....	2	23	17	57.87	56.00	.2515	.2608
Massachusetts.....	2	14	21	54.00	54.00	.3028	.2937
New Jersey.....	2	11	11	54.45	54.45	.3303	.3303
New York.....	4	15	14	53.67	53.57	.3413	.3440
Pennsylvania.....	3	56	43	57.38	58.37	.2837	.2812

BOILER MAKERS, Male.

California.....	2	38	39	54.79	55.54	\$0.3493	\$0.3637
Delaware.....	2	27	42	54.00	54.00	.2571	.2508
Maryland.....	2	59	65	56.41	55.18	.2676	.2689
New Jersey.....	2	53	48	49.06	49.17	.3637	.3625
Pennsylvania.....	3	165	118	57.88	58.61	.2407	.2443

CALKERS, IRON, Male.

New York.....	2	14	20	53.79	53.85	\$0.3085	\$0.3022
Pennsylvania.....	3	220	269	58.50	59.32	.2746	.2697

CALKERS, WOOD, Male.

Maine.....	3	98	56	57.72	56.59	\$0.2844	\$0.2980
Maryland.....	2	47	60	54.00	54.00	.2778	.2778
Massachusetts.....	3	31	25	48.39	48.48	.3887	.3895
New Jersey.....	2	112	93	50.36	50.32	.3033	.3033
New York.....	7	93	107	53.77	53.62	.3224	.3251

CARPENTERS, Male.

California.....	3	93	242	55.35	58.41	\$0.4117	\$0.3715
Delaware.....	3	90	145	54.00	54.00	.2927	.2756
Maine.....	4	311	158	57.57	56.26	.2481	.2487
Maryland.....	3	47	48	54.55	54.50	.2967	.2935
Massachusetts.....	3	88	104	51.95	52.44	.3273	.3232
New Jersey.....	3	258	227	50.74	50.72	.3533	.3574
New York.....	7	317	320	53.73	53.18	.3015	.3033
Pennsylvania.....	3	190	201	57.99	59.90	.2939	.2962

TABLE V.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY STATES—Continued.

SHIPBUILDING—Continued.

DRILLERS, Male.

State.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Delaware.....	2	24	42	54.00	54.00	\$0.1694	\$0.1570
Maine.....	3	82	82	55.10	55.10	.1857	.1817
New York.....	2	22	20	53.77	53.70	.2218	.2286
Pennsylvania.....	3	213	381	59.12	59.62	.2467	.2345

FITTERS, Male.

Delaware.....	2	25	43	54.00	54.00	\$0.2494	\$0.2375
Maryland.....	2	52	55	55.60	55.44	.2465	.2630
Massachusetts.....	2	16	35	54.00	54.00	.3233	.3000
New York.....	3	36	37	53.75	53.73	.3025	.3077
Pennsylvania.....	3	272	215	57.50	57.87	.2365	.2379

JOINERS, Male.

California.....	3	81	168	54.59	54.29	\$0.3575	\$0.3658
Delaware.....	2	107	154	54.00	54.00	.2600	.2612
Maine.....	2	24	20	57.33	57.20	.2490	.2500
Maryland.....	3	76	169	55.41	55.84	.2727	.2639
Massachusetts.....	2	87	69	52.55	52.78	.3259	.3301
New Jersey.....	2	26	22	56.92	57.27	.2875	.2875
New York.....	4	93	85	54.22	54.12	.3157	.3167
Pennsylvania.....	3	264	174	56.76	58.99	.2719	.2772

LABORERS, Male.

California.....	3	131	217	55.24	57.32	\$0.2261	\$0.2145
Delaware.....	3	238	262	54.00	54.00	.1435	.1422
Maine.....	4	125	69	55.26	55.26	.1774	.1804
Maryland.....	3	153	329	57.39	57.70	.1394	.1353
Massachusetts.....	2	64	68	54.00	54.00	.1997	.2014
New York.....	7	222	289	54.57	54.15	.1751	.1748
Pennsylvania.....	3	610	594	56.19	57.03	.1479	.1484

MACHINISTS, Male.

California.....	2	354	484	54.08	54.09	\$0.3460	\$0.3326
Delaware.....	2	112	128	54.00	54.00	.2766	.2806
Maryland.....	2	82	87	56.43	57.56	.2704	.2603
Massachusetts.....	2	93	93	54.00	54.00	.2796	.2831
New Jersey.....	2	102	77	51.77	51.36	.3203	.3200
New York.....	3	82	73	53.27	53.26	.2729	.3119
Pennsylvania.....	3	572	569	57.75	58.63	.2517	.2538

PAINTERS, Male.

Delaware.....	2	49	67	54.00	54.00	\$0.2360	\$0.2429
Maryland.....	3	170	207	54.46	54.66	.2341	.2294
New Jersey.....	2	18	12	57.50	57.50	.2500	.2500
New York.....	4	61	71	55.33	54.87	.2338	.2408
Pennsylvania.....	3	158	84	57.90	58.10	.2911	.2942

RIGGERS, Male.

California.....	4	90	126	54.13	54.14	\$0.3409	\$0.3303
Delaware.....	2	23	21	54.00	54.00	.2022	.1929
Maryland.....	2	18	23	55.67	55.65	.1977	.1942
Massachusetts.....	2	26	32	54.00	54.00	.2348	.2425
New York.....	3	33	39	53.82	53.82	.1880	.1881
Pennsylvania.....	3	177	211	58.28	59.32	.1968	.1968

TABLE V.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY STATES—Continued.

SHIPBUILDING—Concluded.

RIVETERS, Male.

State.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Delaware.....	2	20	18	54.00	54.00	\$0.2755	\$0.2229
Massachusetts.....	2	20	35	54.00	54.00	.2940	.3410
New York.....	3	75	93	53.73	53.73	.3122	.3121
Pennsylvania.....	3	133	224	57.99	59.02	.3037	.3027

SILK GOODS.

QUILLERS, Female.

Connecticut.....	2	67	82	60.00	60.00	\$0.0988	\$0.0977
New Jersey.....	4	92	123	55.00	55.00	.0905	.0901
New York.....	3	32	39	57.91	58.36	.0703	.0746
Pennsylvania.....	4	81	95	58.33	58.27	.0835	.0815

SPINNERS, Male.

New Jersey.....	2	15	15	55.00	55.00	\$0.0949	\$0.0970
Pennsylvania.....	3	160	183	58.11	58.44	.0725	.0768

WARPERS, Female.

Connecticut.....	2	115	108	60.00	60.00	\$0.1480	\$0.1458
New Jersey.....	2	66	82	55.00	55.00	.2382	.2344
New York.....	3	12	30	56.33	58.63	.2518	.2041
Pennsylvania.....	4	248	265	58.35	58.38	.1401	.1329

WEAVERS, Male.

Connecticut.....	2	247	314	60.00	60.00	\$0.1032	\$0.1051
New Jersey.....	3	171	205	55.00	55.00	.2117	.2069
New York.....	2	93	74	57.18	57.01	.1667	.1830

WEAVERS, Female.

Connecticut.....	2	277	277	60.00	60.00	\$0.1511	\$0.1549
New Jersey.....	3	326	374	55.00	55.00	.1958	.1811
New York.....	3	289	273	58.73	59.01	.1696	.1696
Pennsylvania.....	3	862	978	58.09	58.15	.1142	.1216

WINDERS, Female.

New Jersey.....	5	123	118	55.00	55.00	\$0.1335	\$0.1403
New York.....	3	54	44	58.22	58.16	.1367	.1209
Pennsylvania.....	4	278	297	58.77	58.81	.0857	.0929

WOOLEN AND WORSTED GOODS.

BURLERS, Female.

Connecticut.....	2	22	23	60.00	60.00	\$0.1460	\$0.1486
Maine.....	3	45	63	60.00	60.00	.1074	.1160
Massachusetts.....	5	152	145	56.14	58.00	.1050	.1041
New Jersey.....	2	31	26	56.45	56.15	.0857	.0908
New York.....	2	119	127	57.49	57.57	.0846	.0908
Pennsylvania.....	5	115	100	60.00	60.00	.0984	.1032
Rhode Island.....	5	169	148	58.00	58.00	.1066	.1146

TABLE V.—AVERAGE WAGES AND HOURS OF LABOR, 1904 AND 1905, IN SELECTED OCCUPATIONS, BY STATES—Concluded.

WOOLEN AND WORSTED GOODS—Concluded

CARDERS, Male.

State.	Number of establishments.	Number of employees.		Average hours per week.		Average wages per hour.	
		1904.	1905.	1904.	1905.	1904.	1905.
Connecticut.....	2	15	16	60.00	60.00	\$0.1237	\$0.1244
Maine.....	3	13	16	60.00	60.00	.0981	.1056
Massachusetts.....	6	115	109	56.46	55.11	.1144	.1145
New Hampshire.....	2	12	18	60.00	60.00	.1183	.1229
New York.....	2	16	15	58.25	58.80	.1075	.1151
Pennsylvania.....	3	19	18	60.00	60.00	.1186	.1366
Rhode Island.....	5	53	46	58.00	58.00	.1106	.1105

DYERS, Male.

Connecticut.....	2	15	15	60.00	60.00	\$0.1324	\$0.1341
Maine.....	3	60	70	60.00	60.00	.1380	.1400
Massachusetts.....	6	103	201	56.59	58.00	.1291	.1293
New Hampshire.....	2	9	8	60.00	60.00	.1350	.1375
New York.....	2	43	40	58.02	58.35	.1335	.1352
Pennsylvania.....	4	45	40	60.00	60.00	.1539	.1546
Rhode Island.....	5	109	111	61.21	61.15	.1237	.1242

LOOM FIXERS, Male.

Connecticut.....	2	14	14	60.00	60.00	\$0.1857	\$0.1857
Maine.....	3	20	20	60.00	60.00	.2158	.2212
Massachusetts.....	6	82	82	56.98	58.00	.2355	.2377
New Hampshire.....	2	7	7	60.00	60.00	.2179	.2179
New York.....	2	19	22	57.84	58.23	.2359	.2420
Pennsylvania.....	5	29	32	60.00	60.00	.2728	.2764
Rhode Island.....	5	79	90	58.00	58.00	.2379	.2414

SPINNERS, FRAME, Female.

New York.....	2	112	118	57.22	57.38	\$0.0845	\$0.0609
Rhode Island.....	2	141	103	58.00	58.00	.1083	.1081

SPINNERS, MULE, Male.

Connecticut.....	2	23	20	60.00	60.00	\$0.1491	\$0.1589
Maine.....	2	21	24	60.00	60.00	.1860	.1968
Massachusetts.....	6	121	113	56.98	58.09	.1924	.1941
New Hampshire.....	2	44	41	60.00	60.00	.1781	.1817
New Jersey.....	2	47	46	60.00	55.65	.2188	.2228
Pennsylvania.....	2	33	37	60.00	60.00	.1627	.1563
Rhode Island.....	5	63	72	58.00	58.00	.1985	.2020

WEAVERS, Male.

Connecticut.....	2	147	157	60.00	60.00	\$0.1854	\$0.1942
Maine.....	3	151	156	60.00	60.00	.1548	.1548
Massachusetts.....	6	479	361	57.45	58.00	.1583	.1726
New Hampshire.....	2	37	42	60.00	60.00	.1435	.1692
New Jersey.....	2	53	39	57.64	56.79	.1740	.1810
New York.....	2	96	132	58.65	59.50	.1705	.1763
Pennsylvania.....	5	242	239	60.00	60.00	.2000	.2114
Rhode Island.....	4	503	503	58.00	58.00	.1922	.2015

WEAVERS, Female.

Connecticut.....	2	23	27	60.00	60.00	\$0.1714	\$0.1789
Maine.....	3	97	138	60.00	60.00	.1585	.1480
Massachusetts.....	6	911	936	56.89	58.00	.1451	.1479
New Hampshire.....	2	73	73	60.00	60.00	.1556	.1700
New Jersey.....	2	106	109	55.28	55.41	.1465	.1606
New York.....	2	155	190	57.41	57.58	.1348	.1454
Pennsylvania.....	5	147	156	60.00	60.00	.1732	.1828
Rhode Island.....	5	503	508	58.00	58.00	.1596	.1673

RETAIL PRICES OF FOOD, 1890 TO 1905.

In the Eighteenth Annual Report of the Bureau of Labor were published retail prices of the principal staple articles of food for the fourteen years from 1890 to 1903. In Bulletin No. 59, the issue for July, 1905, the prices were continued to include 1904. It is the purpose of the Bureau of Labor to continue this compilation from year to year. In the present Bulletin the prices have been continued to include 1905.

The retail prices of food in 1905 were at the highest point during the sixteen-year period covered by the investigation of the Bureau. The average prices of 23 of the 30 articles included in this compilation of prices were higher in 1905 than in 1904, and the price of every article included in the compilation, excepting coffee and prunes, was higher in 1905 than in 1896—the year of lowest prices during the last sixteen years.

The average prices of wheat bread, butter, cheese, chickens, corn meal, eggs, fresh fish, salt fish, milk, mutton, and veal were higher in 1905 than in any other year of the sixteen-year period covered by this investigation.

The advance in bacon since 1896 has been 43.5 per cent; the advance in Irish potatoes 43.1 per cent; the advance in eggs 41.8 per cent; the advance in dry or pickled pork 31.9 per cent; the advance in fresh pork 30 per cent; the advance in flour 29.3 per cent; the advance in corn meal 28.6 per cent. The advance in food when each of the 30 articles is given a weight according to its consumption in the family of the workingman, has been 0.6 per cent since 1904, 17.7 per cent since 1896, and 12.4 per cent when compared with the average for the ten-year period, 1890 to 1899.

In the Eighteenth Annual Report were included a total of 5,302 schedules or statements of prices from 814 retail merchants for the years 1890 to 1902 and 5,293 schedules from 811 merchants for the year 1903. The prices were secured in the principal industrial localities in 33 States, including the District of Columbia. In collecting the prices published in Bulletin No. 59, the scope of the investigation was enlarged and included 6,760 schedules from 1,064 firms in the principal industrial localities in 40 States, including the District of Columbia. The present investigation includes 6,193 schedules from 999 firms in the principal industrial localities in 39 States, including the District of Columbia, the prices from North Carolina having been discontinued.

A number of smaller cities, heretofore shown, are not included in the present investigation, but a greater number of schedules than heretofore have been secured in the more important cities. The 69 cities selected are so distributed that the prices fairly represent the prices to the consumers in the principal cities in all parts of the country. As far as possible, 1905 prices were secured from those firms which furnished prices for previous years. If a firm which had heretofore furnished prices to the Bureau was no longer in business, or where additional firms were desired, or where prices could be secured from firms more representative than those which furnished prices for previous years, prices were secured for both 1904 and 1905, so that in every case the 1904 and 1905 prices shown in this compilation are from the same firm.

The schedules were in all cases secured by personal visits of agents of the Bureau. The firms furnishing prices were those selling largely to the workingman.

In this compilation prices are quoted for 30 distinct articles and under each article prices are shown for various grades and descriptions of that article. The articles for which retail prices are quoted in this report, the number of schedules or statements of prices secured for each article, and the number of cities and States in which the schedules were secured, are shown in the table which follows:

ARTICLES FOR WHICH RETAIL PRICES ARE SHOWN, NUMBER OF SCHEDULES SECURED FOR EACH ARTICLE, AND NUMBER OF CITIES AND STATES IN WHICH THE SCHEDULES WERE SECURED IN 1904 AND 1905.

Articles.	Total schedules.	Cities in which secured.	States in which secured.
Apples, evaporated.....	155	68	39
Beans, dry.....	159	69	39
Beef, fresh, roasts.....	454	69	39
Beef, fresh, steaks.....	456	69	39
Beef, salt.....	157	69	39
Bread, wheat.....	225	69	39
Butter.....	236	69	39
Cheese.....	173	69	39
Chickens (full grown), dressed.....	162	69	39
Coffee.....	181	69	39
Corn meal.....	175	69	39
Eggs.....	229	69	39
Fish, fresh.....	174	68	39
Fish, salt.....	175	69	39
Flour, wheat.....	226	69	39
Lard.....	177	69	39
Milk, fresh, unskimmed.....	212	69	39
Molasses.....	179	69	39
Mutton and lamb.....	164	69	39
Pork, fresh.....	223	69	39
Pork, salt, bacon.....	230	69	39
Pork, salt, dry or pickled.....	165	69	39
Pork, salt, ham.....	235	69	39
Potatoes, Irish.....	223	69	39
Prunes.....	161	69	39
Rice.....	172	69	39
Sugar.....	226	69	39
Ten.....	168	69	39
Veal.....	162	68	35
Vinegar.....	159	69	39
Total.....	6,193	69	39

Sixty-nine cities in which quotations of retail prices were secured are enumerated in the following table:

CITIES IN WHICH RETAIL PRICES WERE SECURED, NUMBER OF FIRMS FROM WHICH SECURED, AND NUMBER OF SCHEDULES OR QUOTATIONS OF PRICES SECURED.

Cities.	Number of firms from which quotations of prices were secured.	Number of schedules or quotations of prices secured.
Albany, N. Y.	12	79
Allegheny, Pa.	9	81
Atlanta, Ga.	19	88
Baltimore, Md.	25	115
Birmingham, Ala.	13	81
Boston, Mass.	30	114
Brooklyn, N. Y.	7	85
Buffalo, N. Y.	28	125
Butte, Mont.	8	78
Charleston, S. C.	21	87
Chicago, Ill.	17	143
Cincinnati, Ohio.	27	113
Cleveland, Ohio.	17	121
Dallas, Tex.	13	78
Denver, Colo.	12	83
Des Moines, Iowa.	6	78
Detroit, Mich.	14	102
Dubuque, Iowa.	13	80
Duluth, Minn.	8	79
Fall River, Mass.	15	76
Flushing, N. Y.	12	81
Grand Rapids, Mich.	10	87
Indianapolis, Ind.	12	83
Jacksonville, Fla.	17	112
Jersey City, N. J.	15	78
Kansas City, Mo.	12	76
Little Rock, Ark.	12	79
Los Angeles, Cal.	14	79
Louisville, Ky.	16	80
Lynn, Mass.	5	75
Malden, Mass.	13	76
Manchester, N. H.	6	84
Memphis, Tenn.	16	87
Milwaukee, Wis.	12	84
Minneapolis, Minn.	11	96
Montgomery, Ala.	18	78
Nashville, Tenn.	20	81
New Haven, Conn.	13	90
New Orleans, La.	28	108
New York, N. Y. (a)	24	153
Norfolk, Va.	12	79
Omaha, Nebr.	8	78
Peoria, Ill.	12	111
Philadelphia, Pa.	37	148
Pittsburg, Pa.	6	78
Portland, Me.	12	79
Portland, Oreg.	14	82
Providence, R. I.	16	82
Richmond, Va.	18	87
Rochester, N. Y.	12	91
St. Louis, Mo.	15	112
St. Paul, Minn.	8	73
Salt Lake City, Utah.	14	86
San Antonio, Tex.	13	79
San Francisco, Cal.	23	135
Scranton, Pa.	17	79
Seattle, Wash.	13	90
Sioux Falls, S. Dak.	11	78
Syracuse, N. Y.	10	82
Tacoma, Wash.	12	78
Terre Haute, Ind.	10	79
Toledo, Ohio.	13	75
Topeka, Kans.	11	78
Trenton, N. J.	10	85
Washington, D. C.	11	102
Wheeling, W. Va.	13	78
Wilkes-Barre, Pa.	20	80
Wilmington, Del.	11	73
Worcester, Mass.	17	82
Total	999	6,193

* Boroughs of Manhattan and Bronx only.

Table I.—Retail prices of food, 1904 and 1905 (pp. 200 to 308).—This table shows for each of the years 1904 and 1905 the average price of the particular article enumerated in each separate schedule or statement of prices. The agents of the Bureau obtained from the retail merchants the prevailing price for the various articles of food during each month of the two years. The monthly prices of the various articles are not published in detail, but from these monthly prices an average price for each year has been computed for each schedule or separate statement of prices. The average price for the year is a simple average, found by adding together the 12 monthly quotations of prices for each article for the year and dividing by 12. The 30 articles are presented in alphabetical order, the prices for each article being shown under each State, by localities in which secured.

The particular grade or description of each article is shown in connection with the average prices in as much detail as possible. The greatest care was taken to secure prices throughout the two years for an article of uniform grade or quality, as changes in quality are, of course, reflected in prices. A reference to Table I (page 200) shows that the first article is "Apples, evaporated," and the first line shows the average price computed from monthly statements of the price of evaporated apples as sold by a certain retail merchant in Birmingham, Ala. The third column shows the average price per pound, \$0.1250, in 1904, the fourth column the average price per pound, \$0.1250, in 1905. The second line presents the average price of evaporated apples computed from statements of monthly prices furnished by a certain other retail merchant in Birmingham, Ala. The third line shows the price of evaporated apples computed from statements of monthly prices furnished an agent of the Bureau by a certain retail merchant in Montgomery, Ala.

For evaporated apples 155 statements of prices are shown. These statements were obtained in 68 cities in 39 States. For dry beans 159 statements of prices are shown. For fresh beef (roasts) 454 statements are shown. The number of statements of prices, or schedules, shown for each of the 30 articles may be seen by reference to a preceding text table.

In some localities the weight of a loaf of bread is fixed by statute, but in many other localities the weight of a loaf varies to some extent with the fluctuations in the price of flour. For this reason the portion of Table I relating to bread shows the weight of the loaf for which the statement of prices was secured, the average price per loaf for 1904 and 1905, and the computed average price per pound (after baking) for each of the two years. A loaf of bread is the usual unit of purchase, but in comparing 1905 and 1904 prices the price per pound should be used in preference to the price per loaf, when the weight per loaf has changed.

Table II.—Relative retail prices of food, 1890 to 1905 (pp. 309 to 316).—In the Eighteenth Annual Report of this Bureau were shown the relative retail prices for each of the fourteen years from 1890 to 1903 for each of the 30 articles of food included in that report and these relative prices are continued in the present compilation.

A relative price, or an index number as it is technically called, of any article is the per cent which the price of that article at any certain date is of the price of the same article at a date or a period which has been selected as the base or standard.

The base selected for the compilation of retail prices is the average price for the ten-year period 1890 to 1899. This base period is the same as was used in the presentation of wholesale prices in Bulletins 39, 45, 51, 57, and 63 of this Bureau. The average for the ten-year period is used as the base for the reason that an average price for a number of years more nearly represents average or normal conditions than does the price for a single year. The value of the relative price is that it enables the reader to follow more readily the course of prices of a single article or of groups of articles.

In the Eighteenth Annual Report relative prices were computed for each of the schedules of prices. The method followed after computing the average price for each year was to determine for each schedule the base price, which is the sum of the average prices of the ten years, 1890 to 1899, divided by 10. The relative price or index number was then obtained for the schedule for each year in the period covered by dividing the average price of the article shown on that schedule for each year by the average price of the same article for the ten-year period, 1890 to 1899. The quotient thus obtained multiplied by 100 is the per cent which the average price that year was of the base price, and is called the index number or relative price.

In the compilation of prices for 1903 and 1904, published in Bulletin 59 and in the present compilation of prices for 1904 and 1905, schedules were secured from many firms who had not before furnished prices, and in many cases such firms had been in existence but a few years. It was therefore necessary to follow a slightly different method in determining the relative price or index number for 1904, as shown in Bulletin 59, and the relative price or index number for 1905, as shown in this Bulletin. The method adopted for determining the 1904 relative price was to compute for each schedule or statement of prices the average price for each year, 1903 and 1904, and then the per cent which the average price in 1904 was of the average price in 1903. These per cents or relative prices for all of the various grades and descriptions of the article were added and the sum divided by the number of schedules secured for that article. Thus for evaporated apples the 33 schedules secured in the North Atlantic States showed that the average price in 1904 was 98.48 per cent of the average price in 1903; the 18 schedules secured in the South Atlantic

States showed that the average price in 1904 was 98.14 per cent of the average price in 1903; the 33 schedules from the North Central States, 97.93 per cent; the 17 schedules from the South Central States, 98.47 per cent; the 17 schedules from the Western States, 99.32 per cent, and the total schedules, 118, showed that the average price in 1904 was 98.39 per cent of the average price in 1903. By referring to Table II (page 309), it is seen that the relative price or index number (average price for 1890 to 1899=100) for evaporated apples in the North Atlantic States in 1903 was 107.5; therefore, in 1904 the relative was 98.48 per cent of 107.5, or 105.9. The relative price for each of the geographical divisions and also for the United States was found by the same method. The relative prices for other articles were determined in the same way.

After collecting prices for 1904 and 1905 the relative price for 1905 was determined in the same way as was the relative price for 1904, as has just been explained. For reasons explained in the discussion of Table I the relative prices for bread are computed from the price per pound and not from the price per loaf.

Considering the United States as a whole, the articles which show the greatest difference between 1904 and 1905 prices are evaporated apples, butter, cheese, mutton, and chickens. The average price of evaporated apples in 1905 was 6.89 per cent above the average price in 1904. The average price of butter in 1905 was 3.44 per cent above the average price in 1904; the average price of cheese, 3.24 per cent above; the average price of mutton, 3.23 per cent above, and the average price of chickens, 2.38 per cent above.

The table which follows shows the per cent of advance or decline for each of the 30 articles when the average price in 1905 is compared with the average price in 1904.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES IN 1905 COMPARED WITH AVERAGE RETAIL PRICES IN 1904.

Articles for which the average price in 1905 was higher than the average price in 1904.	Number of schedules secured.	Per cent of advance in price.	Articles for which the average price in 1905 was lower than the average price in 1904.	Number of schedules secured.	Per cent of decline in price.
Apples, evaporated.....	155	6.89	Beans, dry.....	139	0.39
Bread, wheat.....	225	.56	Beef, fresh, roasts.....	454	.56
Butter.....	236	3.44	Beef, fresh, steaks.....	456	.40
Cheese.....	173	3.24	Beef, salt.....	157	.36
Chickens (full grown), dressed..	162	2.38	Lard.....	177	.56
Coffee.....	181	1.97	Potatoes, Irish.....	223	.12
Corn meal.....	175	.61	Tea.....	108	.06
Eggs.....	229	.55			
Fish, fresh.....	174	1.84			
Fish, salt.....	175	1.89			
Flour, wheat.....	226	.01			
Milk, fresh, unskimmed.....	212	.64			
Molasses.....	179	.42			
Mutton and lamb.....	164	3.23			
Pork, fresh.....	223	2.12			
Pork, salt, bacon.....	230	.66			
Pork, salt, dry or pickled.....	165	.19			
Pork, salt, ham.....	235	.10			
Prunes.....	161	2.24			
Rice.....	172	1.02			
Sugar.....	226	1.98			
Veal.....	162	1.91			
Wheat.....	150	1.44			

A simple average of the per cent of advance of the prices of the 23 articles which show an advance is 1.71 per cent, while a similar average for the 7 articles which show a decline is 0.35 per cent. All of the more important articles of food except beef (fresh and salt) and potatoes advanced in price; the decline in the prices of beef and potatoes was very slight. The average price of roasts in 1905 was 0.56 per cent below the average price in 1904; of steaks 0.40 per cent below; of salt beef 0.36 per cent below, and of potatoes 0.12 per cent below.

Relative prices are not presented for each of the schedules or statements of prices, owing to the large amount of space which would be required, and it is not believed that such presentation would materially add to the value of the report. The 39 States from which prices were secured have been grouped. The relative prices for each of the 30 articles are shown for each of the five geographical divisions, and for the United States. The classification of the States into groups is as follows:

North Atlantic States:

Connecticut.
Maine.
Massachusetts.
New Hampshire.
New Jersey.
New York.
Pennsylvania.
Rhode Island.

South Atlantic States:

Delaware.
District of Columbia.
Florida.
Georgia.
Maryland.
South Carolina.
Virginia.
West Virginia.

North Central States:

Illinois.
Indiana.
Iowa.
Kansas.

North Central States—Concluded.

Michigan.
Minnesota.
Missouri.
Nebraska.
Ohio.
South Dakota.
Wisconsin.

South Central States:

Alabama.
Arkansas.
Kentucky.
Louisiana.
Tennessee.
Texas.

Western States.

California.
Colorado.
Montana.
Oregon.
Utah.
Washington.

From an examination of the part of Table II which shows relative prices for fresh beef, roasts (page 309) it is seen that meat of this description in the North Atlantic States reached the lowest price of the sixteen-year period in 1894, the relative price for that year being 97.9, or 2.1 per cent below the average price of the ten-year period 1890 to 1899; in the South Atlantic States the lowest relative price, 97, was in 1893; in the North Central States the lowest, 98.8, was in 1896; in the South Central States the lowest 95.3, was in 1890; in the

Western States the lowest, 95.7, was in 1893. Considering all the schedules secured in the United States for this article the lowest relative price was 98.3, in 1894.

In each of the five divisions of States, and also in the United States considered as a whole, the highest relative price for this article during the sixteen-year period was reached in 1902. In the North Atlantic States the relative price for that year was 118.9, or 18.9 per cent above the average price for the ten-year period 1890 to 1899; in the South Atlantic States the relative price was 120.2; in the North Central States, 117.2; in the South Central States, 118.5; in the Western States, 119.9, and in the United States, 118.6.

The relative retail prices in the United States, considered as a whole, of the 30 articles of food for the sixteen years from 1890 to 1905 are presented in the table which follows:

RELATIVE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES, 1890 TO 1905.

[Average price for 1890-1899=100.0.]

Year.	Apples, evapo- rated.	Beans, dry.	Beef, fresh, roasts.	Beef, fresh, steaks.	Beef, salt.	Bread, wheat.	Butter.	Cheese.	Chick- ens (full grown), dressed.	Coffee.
1890.....	109.0	103.3	99.5	98.8	97.5	100.3	99.2	98.8	101.3	105.4
1891.....	110.3	106.2	100.0	99.4	98.3	100.3	106.4	100.3	104.0	105.2
1892.....	99.3	102.4	99.6	99.3	99.5	100.3	106.8	101.5	103.8	103.8
1893.....	107.0	105.0	99.0	99.6	100.3	100.1	109.9	101.8	104.2	104.8
1894.....	105.8	102.8	98.3	98.2	98.9	99.9	101.7	101.6	98.6	103.3
1895.....	97.4	100.5	98.6	99.1	99.6	99.7	97.0	99.2	98.4	101.7
1896.....	88.6	92.7	99.1	99.5	99.8	99.9	92.7	97.9	97.1	99.6
1897.....	87.8	91.5	100.3	100.2	100.9	100.0	93.1	99.0	94.0	94.6
1898.....	95.4	95.9	101.7	102.0	102.1	99.8	95.1	97.5	96.8	91.1
1899.....	99.5	99.7	103.7	103.9	103.2	99.6	97.7	102.4	101.8	90.5
1900.....	95.2	110.0	106.5	106.4	103.7	99.7	101.4	103.9	100.8	91.1
1901.....	96.8	113.9	110.7	111.0	106.1	99.4	103.2	103.3	103.0	90.7
1902.....	104.4	116.8	118.6	118.5	116.0	99.4	111.5	107.3	113.2	89.6
1903.....	100.8	118.1	113.1	112.9	108.8	100.2	110.8	109.4	118.5	89.3
1904.....	99.2	116.8	112.8	113.4	108.3	103.9	109.0	107.4	120.7	91.8
1905.....	106.0	116.3	112.2	112.9	107.9	104.5	112.7	110.9	123.6	93.6

Year.	Corn meal.	Eggs.	Fish, fresh.	Fish, salt.	Flour, wheat.	Lard.	Milk, fresh, unskim- med.	Molasses.	Mutton and lamb.	Pork, fresh.
1890.....	100.0	100.6	99.3	100.7	109.7	98.2	100.5	104.7	100.7	97.0
1891.....	109.7	106.9	99.6	101.7	112.5	99.8	100.5	101.7	100.6	98.7
1892.....	105.2	106.8	100.1	102.2	105.1	103.6	100.6	101.2	101.0	100.5
1893.....	103.1	108.1	100.1	103.4	96.1	117.9	100.4	100.6	99.9	107.0
1894.....	102.2	96.3	100.4	101.5	88.7	106.9	100.2	100.3	97.8	101.8
1895.....	100.8	99.3	99.8	98.9	89.0	100.1	100.0	99.0	98.7	99.7
1896.....	95.0	92.8	100.2	97.5	92.7	92.5	99.9	98.7	98.7	97.4
1897.....	93.7	91.4	99.8	95.2	104.3	89.8	99.7	97.7	99.6	97.6
1898.....	95.0	96.2	100.5	98.8	107.4	93.9	99.4	97.9	100.4	98.6
1899.....	95.1	104.1	100.2	100.2	94.6	97.1	98.9	98.2	102.6	101.7
1900.....	97.4	99.9	100.4	99.1	94.3	104.4	99.9	102.2	105.6	107.7
1901.....	107.1	105.7	101.4	100.9	94.4	118.1	101.1	101.3	109.0	117.9
1902.....	118.8	119.1	105.0	102.8	94.9	134.3	103.3	102.1	114.7	128.3
1903.....	120.7	125.3	107.3	108.4	101.2	126.7	105.8	103.8	112.6	127.0
1904.....	121.5	130.9	107.9	111.7	119.9	117.3	105.3	104.0	114.1	124.0
1905.....	122.2	131.6	109.9	113.8	119.9	116.6	107.0	104.4	117.8	126.6

RELATIVE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES, 1890 TO 1905—Concluded.

[Average price for 1890-1899=100.0.]

Year.	Pork, salt, bacon.	Pork, salt, dry or pickled.	Pork, salt, ham.	Pota- toes, Irish.	Prunes.	Rice.	Sugar.	Tea.	Veal.	Vinegar.
1890.....	95.8	95.3	98.7	109.3	116.8	101.3	118.6	100.0	98.8	102.9
1891.....	96.6	98.9	99.3	116.6	116.5	102.5	102.7	100.4	99.6	105.5
1892.....	99.1	100.5	101.9	95.7	113.5	101.3	96.2	100.2	100.0	102.7
1893.....	109.0	108.7	109.3	112.3	115.6	98.4	101.5	100.1	100.0	99.5
1894.....	103.6	103.4	101.9	102.6	100.9	99.0	93.8	98.7	98.7	99.8
1895.....	99.4	99.2	98.8	91.8	94.2	98.8	91.8	98.5	98.5	98.9
1896.....	96.7	95.5	97.6	77.0	86.8	96.7	96.6	98.8	99.5	97.2
1897.....	97.4	97.3	98.2	93.0	84.3	97.9	95.7	98.5	99.9	97.4
1898.....	100.2	99.1	95.1	105.4	86.3	101.7	101.3	100.7	101.2	97.9
1899.....	102.9	101.8	99.2	96.1	85.1	102.4	101.7	104.4	103.7	98.3
1900.....	109.7	107.7	105.3	93.5	83.0	102.4	104.9	105.5	104.9	98.5
1901.....	121.0	117.5	110.2	116.8	82.6	103.5	103.0	106.7	108.8	98.9
1902.....	135.6	132.5	119.4	117.0	83.4	103.5	96.0	107.2	115.2	99.5
1903.....	139.8	129.0	121.3	114.8	80.2	103.9	96.1	106.0	114.9	99.1
1904.....	137.9	125.8	118.4	121.3	79.6	101.6	101.9	105.8	115.5	98.9
1905.....	138.8	126.0	118.5	110.2	81.4	102.6	103.9	105.7	117.7	100.3

From this table it is seen that the price of fresh roasting beef in 1890 was 99.5 per cent of the average price during the ten-year period from 1890 to 1899. In 1891 the price was exactly the same as the average price for the ten-year period—that is, 100.0. The lowest point reached was in 1894, when it was 98.3 per cent of the average price for the ten-year period. The highest point reached was in 1902, when it stood at 118.6. In 1905 it stood at 112.2, or 12.2 per cent higher than the average price for the period from 1890 to 1899. In the use of these tables showing the relative figures it should be borne in mind that the difference between the relative prices in any two years is not the per cent of difference in the cost. For example: The relative price of fresh roasting beef was 98.3 in 1894 and 112.2 in 1905. The difference between these relative prices is 13.9; and this figure being 14.1 per cent of 98.3, the per cent of increase in 1905 over 1894 is 14.1 per cent.

Bacon, eggs, fresh pork, dry or pickled pork, chickens, and corn meal show a marked increase in price during the last few years. This, however, is presented more clearly in tables on subsequent pages.

From the preceding table is drawn the one which follows. It shows for the United States the lowest and highest yearly relative price of each of the 30 articles of food for the sixteen years, 1890 to 1905; also the year in which the lowest and highest yearly prices were reached.

LOWEST AND HIGHEST YEARLY RELATIVE RETAIL PRICES OF THE PRINCIPAL
ARTICLES OF FOOD IN THE UNITED STATES, 1890 TO 1905.

[Average price for 1890-1899=100.0.]

Article.	Lowest.		Highest.	
	Year.	Relative price.	Year.	Relative price.
Apples, evaporated.....	1897	87.8	1891	110.3
Beans, dry.....	1897	91.5	1903	118.1
Beef, fresh, roasts.....	1894	98.3	1902	118.6
Beef, fresh, steaks.....	1894	98.2	1902	118.5
Beef, salt.....	1890	97.5	1902	116.0
Bread, wheat.....	1901, 1902	99.4	1905	104.5
Butter.....	1896	92.7	1905	112.7
Cheese.....	1898	97.5	1905	110.9
Chickens (full grown), dressed.....	1897	94.0	1905	123.6
Coffee.....	1903	89.3	1890	105.4
Corn meal.....	1897	93.7	1905	122.2
Eggs.....	1897	91.4	1905	131.6
Fish, fresh.....	1890	99.3	1905	109.9
Fish, salt.....	1897	95.2	1905	113.8
Flour, wheat.....	1894	88.7	1904, 1905	119.9
Lard.....	1897	89.8	1902	134.3
Milk, fresh, unskimmed.....	1899	98.9	1905	107.0
Molasses.....	1897	97.7	1890	104.7
Mutton and lamb.....	1894	97.8	1905	117.8
Pork, fresh.....	1890	97.0	1902	128.3
Pork, salt, bacon.....	1890	95.8	1903	139.8
Pork, salt, dry or pickled.....	1890	95.3	1902	132.5
Pork, salt, ham.....	1898	95.1	1903	121.3
Potatoes, Irish.....	1896	77.0	1904	121.3
Prunes.....	1904	79.6	1890	116.8
Rice.....	1896	96.7	1903	103.9
Sugar.....	1895	91.8	1890	118.6
Ten.....	1895, 1897	98.5	1902	107.2
Veal.....	1895	98.5	1905	117.7
Vinegar.....	1896	97.2	1891	105.5

Of the 30 articles, the lowest yearly relative price was reached by 5 in 1890, 4 in 1894, 2 in 1895, 1 in 1895 and 1897 (the price being the same for the two years), 4 in 1896, 8 in 1897, 2 in 1898, 1 in 1899, 1 in 1901 and 1902, 1 in 1903, and 1 in 1904. The highest yearly relative price was reached by 4 in 1890, 2 in 1891, 7 in 1902, 4 in 1903, 1 in 1904, 1 in 1904 and 1905, and 11 in 1905. Thus the highest yearly price of the sixteen-year period was reached by four-fifths of the 30 articles during the last four years and by practically two-fifths of the 30 articles during the last year.

In addition to the relative prices which are shown for each of the articles, this report also shows relative prices for the 30 articles of food considered as a whole. The relative prices for the food group were computed and are presented in two ways—the one being simple averages, which were found by adding the relative prices for all of the 30 articles and dividing by 30, the number of articles; the other being weighted averages, in which the relative prices were found by giving to the various articles their weight or relative importance, as measured by the value of the article consumed in a year by representative workingmen's families, as shown by the family budgets secured in connection with the Eighteenth Annual Report of this Bureau. This weighted average will be further discussed in connection with other tables.

The following table presents the simple averages of the relative prices of the 30 articles of food for each year from 1890 to 1905 in each of the five geographical divisions and in the United States considered as a whole. In the North Atlantic States, 2,664 schedules were obtained for 1890 to 1902, 2,659 for 1903, 2,625 for 1904, and 2,083 for 1905; in the South Atlantic States 588 schedules were obtained for 1890 to 1902, 587 for 1903, 872 for 1904, and 821 for 1905; in the North Central States, 1,444 schedules were obtained for 1890 to 1902, 1,443 for 1903, 1,865 for 1904, and 1,827 for 1905; in the South Central States, 325 schedules were obtained for 1890 to 1903, 680 for 1904, and 751 for 1905; and in the Western States, 281 schedules were obtained for 1890 to 1902, 279 for 1903, 718 for 1904, and 711 for 1905, making a total for the United States of 5,302 schedules for 1890 to 1902, 5,293 for 1903, 6,760 for 1904, and 6,193 for 1905.

RELATIVE RETAIL PRICES OF FOOD, SIMPLE AVERAGES, BY GEOGRAPHICAL DIVISIONS, 1890 TO 1905.

[Average price for 1890-1899=100.0.]

Year.	North Atlantic States.	South Atlantic States.	North Central States.	South Central States.	Western States.	United States.
1890	101.9	100.7	102.3	101.1	105.4	102.1
1891	102.9	101.5	104.1	102.9	106.2	103.4
1892	102.0	100.6	101.7	100.6	104.4	101.8
1893	104.3	102.1	105.0	102.9	102.7	104.1
1894	99.9	100.3	100.9	99.9	99.4	100.3
1895	98.2	99.5	98.3	98.2	97.3	98.2
1896	96.2	97.5	94.9	96.2	93.9	95.8
1897	96.9	97.8	95.3	97.2	94.2	96.3
1898	98.3	99.4	98.1	99.9	96.7	98.5
1899	99.3	100.6	99.4	101.0	99.8	99.6
1900	101.3	102.2	101.7	103.3	100.1	101.5
1901	104.4	106.6	106.7	108.1	102.0	105.5
1902	110.0	110.8	112.1	114.1	106.9	110.9
1903	110.4	110.1	112.0	114.0	108.1	110.9
1904	111.2	110.2	112.6	115.0	109.4	111.6
1905	111.8	111.2	114.0	115.9	110.0	112.5

This table of simple averages shows that the lowest relative price was reached in each of the five geographical divisions and in the United States in 1896 and the highest relative price was reached in each of the geographical divisions and in the United States in 1905. In the North Atlantic States the relative price ranged from 96.2 to 111.8; in the South Atlantic States, from 97.5 to 111.2; in the North Central States, from 94.9 to 114.0; in the South Central States, from 96.2 to 115.9; in the Western States, from 93.9 to 110.0, and in the total for the United States, from 95.8 to 112.5. As indicated by this table of simple averages, the price of food in the United States in 1905, as compared with each of the other years of the period, was 10.2 per cent higher than in 1890, 8.8 per cent higher than in 1891, 10.5 per cent higher than in 1892, 8.1 per cent higher than in 1893, 12.2 per cent higher than in 1894, 14.6 per cent higher than in 1895, 17.4 per cent higher than in 1896 (the year of lowest prices for food), 16.8 per cent higher than in 1897, 14.2 per cent higher than in 1898, 13.0 per

cent higher than in 1899, 10.8 per cent higher than in 1900, 6.6 per cent higher than in 1901, 1.4 per cent higher than in 1902, 1.4 per cent higher than in 1903, and 0.8 per cent higher than in 1904.

The table which follows shows the articles whose price in 1905 was higher than the average price for the ten-year period, 1890 to 1899, and also the articles whose price in 1905 was lower than the average price for 1890 to 1899. The table follows:

RELATIVE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES, 1905 COMPARED WITH AVERAGE PRICE FOR 1890-1899.

[Average price for 1890-1899=100.0.]

Articles for which the average price in 1905 was higher than the average for 1890-1899.	Relative price 1905.	Articles for which the average price in 1905 was lower than the average for 1890-1899.	Relative price 1905.
Vinegar.....	100.3	Coffee.....	93.6
Rice.....	102.6	Prunes.....	81.4
Sugar.....	103.9		
Molasses.....	104.4		
Bread, wheat.....	104.5		
Tea.....	105.7		
Apples, evaporated.....	106.0		
Milk, fresh, unskimmed.....	107.0		
Beef, salt.....	107.9		
Fish, fresh.....	109.9		
Potatoes, Irish.....	110.2		
Cheese.....	110.9		
Beef, fresh, roasts.....	112.2		
Butter.....	112.7		
Beef, fresh, steak.....	112.9		
Fish, salt.....	113.8		
Beans, dry.....	116.3		
Lard.....	116.6		
Veal.....	117.7		
Mutton and lamb.....	117.8		
Pork, salt, ham.....	118.5		
Flour, wheat.....	119.9		
Corn meal.....	122.2		
Chickens (full grown), dressed.....	123.6		
Pork, salt, dry or pickled.....	126.0		
Pork, fresh.....	126.6		
Eggs.....	131.6		
Pork, salt, bacon.....	138.8		

This table shows that the price of each of the articles except coffee and prunes was higher in 1905 than the average price for the ten-year period, 1890 to 1899. Bacon was 38.8 per cent higher, eggs 31.6 per cent higher, fresh pork 26.6 per cent higher, dry or pickled pork 26.0 per cent higher, chickens 23.6 per cent higher, corn meal 22.2 per cent higher, flour 19.9 per cent higher, salt ham 18.5 per cent higher, etc.

The price of prunes was 18.6 per cent lower in 1905 than the average for the ten-year period, 1890 to 1899, and coffee 6.4 per cent lower.

The preceding table is summarized in the short table which follows:

NUMBER AND PER CENT OF THE PRINCIPAL ARTICLES OF FOOD, CLASSIFIED BY PER CENT WHICH THE 1905 RETAIL PRICE IS ABOVE OR BELOW THE AVERAGE PRICE FOR 1890-1899.

Price higher.	Number of articles.	Per cent. of articles.	Price lower.	Number of articles.	Per cent. of articles.
25 to 40 per cent.....	4	13.3	Less than 10 per cent.....	1	3.3
10 to 25 per cent.....	14	46.7	10 to 25 per cent.....	1	3.3
Less than 10 per cent.....	10	33.4			
Total.....	28	83.4	Total.....	2	6.6

From this table it is seen that in 1905 the price of 4 of the 30 articles of food, or 13.3 per cent, was from 25 to 40 per cent higher than the average price for the ten-year period, 1890 to 1899; the price of 14 articles, or 46.7 per cent of the total, was from 10 to 25 per cent higher than the average price for the ten-year period; and the price of 10 articles, or 33.4 per cent of the total, was less than 10 per cent higher than the average price for the ten-year period. On the other hand, the price of 1 article, or 3.3 per cent of the whole number, was less than 10 per cent (6.4 per cent) lower than the average price for the ten-year period, and the price of 1 article, or 3.3 per cent of the whole number, was from 10 to 25 per cent (18.6 per cent) lower than the average price for the ten-year period.

To render easy a comparison of the prices of the last year of the sixteen-year period covered by this investigation with those of each of the other years, the following table has been prepared, showing the per cent of increase or decrease in the prices of 1905, compared with the prices of each previous year of the period:

PER CENT OF INCREASE (+) OR DECREASE (-) IN RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD, 1905 COMPARED WITH PREVIOUS YEARS.

Article.	Per cent of increase or decrease in 1905 compared with—							
	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.
Apples, evaporated.....	- 2.8	- 3.9	+ 6.7	- 0.9	+ 0.2	+ 8.8	+19.6	+20.7
Beans, dry.....	+12.6	+ 9.5	+13.6	+10.8	+13.1	+15.7	+25.5	+27.1
Beef, fresh, roasts.....	+12.8	+12.2	+12.7	+13.3	+14.1	+13.8	+13.2	+11.9
Beef, fresh, steaks.....	+14.3	+13.6	+13.7	+13.4	+15.0	+13.9	+13.5	+12.7
Beef, salt.....	+10.7	+ 9.8	+ 8.4	+ 7.6	+ 9.1	+ 8.3	+ 8.1	+ 6.9
Bread, wheat.....	+ 4.2	+ 4.2	+ 4.2	+ 4.4	+ 4.6	+ 4.8	+ 4.6	+ 4.5
Butter.....	+13.6	+ 5.9	+ 5.5	+ 2.5	+10.8	+16.2	+21.0	+21.1
Cheese.....	+12.2	+10.6	+ 9.3	+ 8.9	+ 9.2	+11.8	+13.3	+12.0
Chickens (full-grown), dressed.....	+22.0	+18.8	+19.1	+18.6	+25.4	+25.6	+27.3	+31.5
Coffee.....	-11.2	-11.0	- 9.8	-10.7	- 9.4	- 8.0	- 6.0	- 1.1
Corn meal.....	+22.2	+11.4	+16.2	+18.5	+19.6	+21.2	+28.6	+30.4
Eggs.....	+30.8	+23.1	+23.2	+21.7	+36.7	+32.5	+41.8	+44.0
Fish, fresh.....	+10.7	+10.3	+ 9.8	+ 9.8	+ 9.5	+10.1	+ 9.7	+10.1
Fish, salt.....	+13.0	+11.9	+11.4	+10.1	+12.1	+15.1	+16.7	+19.5
Flour, wheat.....	+ 9.3	+ 6.6	+14.1	+24.8	+35.2	+34.7	+29.3	+15.0
Lard.....	+18.7	+16.8	+12.5	- 1.1	+ 9.1	+16.5	+26.1	+29.8
Milk, fresh, unskimmed.....	+ 6.5	+ 6.5	+ 6.4	+ 6.6	+ 6.8	+ 7.0	+ 7.1	+ 7.3
Molasses.....	- 3	+ 2.7	+ 3.2	+ 3.8	+ 4.1	+ 5.5	+ 5.8	+ 6.9
Mutton and lamb.....	+17.0	+17.1	+16.6	+17.9	+20.4	+19.4	+19.4	+18.3
Pork, fresh.....	+30.5	+28.3	+26.0	+18.3	+24.4	+27.0	+30.0	+29.7
Pork, salt, bacon.....	+44.9	+43.7	+40.1	+27.3	+34.0	+39.6	+43.5	+42.5
Pork, salt, dry or pickled.....	+32.2	+27.4	+25.4	+15.9	+21.9	+27.0	+31.9	+29.5
Pork, salt, ham.....	+20.1	+19.3	+16.3	+ 8.4	+16.3	+19.9	+21.4	+20.7
Potatoes, Irish.....	+ 8	- 5.5	+15.2	- 1.9	+ 7.4	+20.0	+43.1	+18.5
Prunes.....	-30.3	-30.1	-28.3	-29.6	-19.3	-13.6	- 6.2	- 3.4
Rice.....	+ 1.3	+ 1	+ 1.3	+ 4.3	+ 3.6	+ 3.8	+ 6.1	+ 4.8
Sugar.....	-12.4	+ 1.2	+ 8.0	+ 2.4	+10.8	+13.2	+ 7.6	+ 8.6
Tea.....	+ 5.7	+ 5.3	+ 5.5	+ 5.6	+ 7.1	+ 7.3	+ 7.0	+ 7.3
Veal.....	+19.1	+18.2	+17.7	+17.7	+19.3	+19.5	+18.3	+17.8
Vinegar.....	- 2.5	- 4.9	- 2.3	+ .8	+ .5	+ 1.4	+ 3.2	+ 3.0
All food, simple averages.....	+10.2	+ 8.8	+10.5	+ 8.1	+12.2	+14.6	+17.4	+16.8
All food, weighted according to family consumption.....	+ 9.8	+ 8.3	+10.3	+ 7.7	+12.7	+14.9	+17.7	+16.7

BULLETIN OF THE BUREAU OF LABOR.

PERCENTAGE OF INCREASE (+) OR DECREASE (-) IN RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD, 1905 COMPARED WITH PREVIOUS YEARS—Concluded.

	Per cent of increase or decrease in 1905 compared with—						
	1890.	1891.	1900.	1901.	1902.	1903.	1904.
Apples, fresh	+11.1	+6.5	+11.3	+9.5	+1.5	+5.2	+6.9
Apples, dried	+21.3	+16.6	+5.7	+2.1	— .4	— 1.5	— .4
Apples, canned	+10.3	+8.2	+5.4	+1.4	— 5.4	— .8	— .5
Apples, sweet dressed	+10.7	+8.7	+6.1	+1.7	— 4.7	(a)	— .4
Apples, green	+5.7	+4.6	+4.1	+1.7	— 7.0	— .8	— .4
Apples, red	+4.7	+4.9	+4.8	+5.1	+5.1	+4.3	+ .6
Apples, white	+18.5	+15.4	+11.1	+9.2	+1.1	+1.7	+3.4
Apples, yellow	+13.7	+8.3	+6.7	+7.4	+3.4	+1.4	+3.3
Apples, mixed	+27.7	+21.4	+22.6	+20.0	+9.2	+4.3	+2.4
Apples, small	+2.7	+3.4	+2.7	+3.2	+4.5	+4.8	+2.0
Apples, large	+28.6	+28.5	+25.5	+14.1	+2.9	+1.2	+ .6
Apples, small and large	+26.8	+30.2	+31.7	+24.5	+10.5	+5.0	+ .5
Apples, small and large, mixed	+9.4	+9.7	+0.5	+8.4	+4.7	+2.4	+1.9
Apples, small and large, mixed, dressed	+15.2	+13.6	+14.8	+12.8	+10.7	+5.0	+1.9
Apples, small and large, mixed, dressed, small	+11.6	+26.7	+27.1	+27.0	+26.3	+18.5	(a)
Apples, small and large, mixed, dressed, small, mixed	+24.2	+20.1	+11.7	— 1.3	— 13.2	— 8.0	— .6
Apples, small and large, mixed, dressed, small, mixed, small	+7.6	+8.2	+7.1	+5.8	+3.6	+1.1	+ .7
Apples, small and large, mixed, dressed, small, mixed, small, mixed	+6.6	+6.3	+2.2	+3.1	+2.3	+ .6	+ .4
Apples, small and large, mixed, dressed, small, mixed, small, mixed, small	+17.3	+14.8	+11.6	+8.1	+2.7	+4.6	+3.2
Apples, small and large, mixed, dressed, small, mixed, small, mixed, small, mixed	+28.4	+24.5	+17.5	+7.4	— 1.3	— .3	+2.1
Apples, small and large, mixed, dressed, small, mixed, small, mixed, small, mixed, small	+38.5	+34.9	+26.5	+14.7	+2.4	— .7	+ .7
Apples, small and large, mixed, dressed, small, mixed, small, mixed, small, mixed, small, mixed	+27.1	+23.8	+17.0	+7.2	— 4.9	— 2.3	+ .2
Apples, small and large, mixed, dressed, small, mixed, small, mixed, small, mixed, small, mixed, small	+24.6	+19.5	+12.5	+7.5	— .8	— 2.3	+ .1
Apples, small and large, mixed, dressed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed	+4.6	+14.7	+17.9	— 5.7	— 5.8	— 4.0	— 9.2
Apples, small and large, mixed, dressed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed, small	— 5.7	— 4.3	— 1.9	— 1.5	— 2.4	+1.5	+2.3
Apples, small and large, mixed, dressed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed	— .9	+ .2	+ .2	— .9	— .9	— 1.3	+1.0
Apples, small and large, mixed, dressed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed, small	+2.6	+2.2	— 1.0	+ .9	+8.2	+8.1	+2.0
Apples, small and large, mixed, dressed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed	+5.0	+1.2	+ .2	— .9	— 1.4	— .3	— .1
Apples, small and large, mixed, dressed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed, small	+16.3	+13.5	+12.2	+8.2	+2.2	+2.4	+1.9
Apples, small and large, mixed, dressed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed	+2.5	+2.0	+1.8	+1.4	+ .8	+1.2	+1.4
Apples, small and large, mixed, dressed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed, small	+14.2	+13.0	+10.8	+6.6	+1.4	+1.4	+ .8
Apples, small and large, mixed, dressed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed, small, mixed	+13.9	+13.0	+11.2	+6.8	+1.4	+1.9	+ .6

a No change.

The column of this table shows that the 1905 price of evaporated apples was 1.8 per cent lower than the price in 1890, 3.9 per cent lower than the price in 1891, etc. Some idea of the high prices in 1905 can be gained from the statement that the average prices of apples, bread, butter, cheese, chickens, corn meal, eggs, fresh fish, fresh milk, mutton, and veal were higher in 1905 than in any other year during the sixteen-year period. The average price of apples was the same in 1904 and 1905, and was higher in those years than in any other year during the sixteen-year period.

The average price of eggs in 1905 was 30.8 per cent higher than the price in 1890, 34.4 per cent higher than in 1891, 23.2 per cent higher than in 1893, 36.7 per cent higher than in 1895, 41.8 per cent higher than in 1897, 36.8 per cent higher than in 1899, etc.

The average of the 30 articles of food and also the average for food according to family consumption was higher in 1905 than in any other year during the period covered by this investigation. The average for food weighted, according to family consumption, was 9.8 per cent higher than in 1890, 8.3 per cent higher

than in 1891, 10.3 per cent higher than in 1892, 7.7 per cent higher than in 1893, 12.7 per cent higher than in 1894, 14.9 per cent higher than in 1895, 17.7 per cent higher than in 1896, 16.7 per cent higher than in 1897, 13.9 per cent higher than in 1898, 13 per cent higher than in 1899, 11.2 per cent higher than in 1900, 6.8 per cent higher than in 1901, 1.4 per cent higher than in 1902, 1.9 per cent higher than in 1903, and 0.6 per cent higher than in 1904.

Certain of the articles included in this investigation are related to each other in such a way as to make a comparison of the course of prices of such articles very interesting. These groups of related articles are shown in the table which follows:

RELATIVE RETAIL PRICES IN THE UNITED STATES OF CERTAIN GROUPS OF RELATED ARTICLES OF FOOD, 1890 TO 1905.

[Average price for 1890-1899=100.0.]

Year.	Cattle products.			Dairy products.		
	Beef, fresh, roasts.	Beef, fresh, steaks.	Beef, salt.	Milk, fresh, unskimmed.	Butter.	Cheese.
1890.....	99.5	98.8	97.5	100.5	99.2	98.8
1891.....	100.0	99.4	98.3	100.5	106.4	100.3
1892.....	99.6	99.3	99.5	100.6	106.8	101.5
1893.....	99.0	99.6	100.3	100.4	109.9	101.8
1894.....	98.3	98.2	98.9	100.2	101.7	101.6
1895.....	98.6	99.1	99.6	100.0	97.0	99.2
1896.....	99.1	99.5	99.8	99.9	92.7	97.9
1897.....	100.3	100.2	100.9	99.7	93.1	99.0
1898.....	101.7	102.0	102.1	99.4	95.1	97.5
1899.....	103.7	103.9	103.2	98.9	97.7	102.4
1900.....	106.5	106.4	103.7	99.9	101.4	103.9
1901.....	110.7	111.0	106.1	101.1	103.2	103.3
1902.....	118.6	118.5	116.0	103.3	111.5	107.3
1903.....	113.1	112.9	108.8	105.8	110.8	109.4
1904.....	112.8	113.4	108.3	106.3	109.0	107.4
1905.....	112.2	112.9	107.9	107.0	112.7	110.9

Year.	Hog products.					Flour and bread.	
	Pork, fresh.	Pork, salt, bacon.	Pork, salt, dry or pickled.	Pork, salt, ham.	Lard.	Flour, wheat.	Bread, wheat.
1890.....	97.0	95.8	95.3	98.7	98.2	109.7	100.3
1891.....	98.7	96.6	98.9	99.3	99.8	112.5	100.3
1892.....	100.5	99.1	100.5	101.9	103.6	105.1	100.3
1893.....	107.0	109.0	108.7	109.3	117.9	96.1	100.1
1894.....	101.8	103.6	103.4	101.9	106.9	88.7	99.9
1895.....	99.7	99.4	99.2	98.8	100.1	89.0	99.7
1896.....	97.4	96.7	95.5	97.6	92.5	92.7	99.9
1897.....	97.6	97.4	97.3	98.2	86.8	104.3	100.0
1898.....	98.6	100.2	99.1	95.1	93.9	107.4	99.8
1899.....	101.7	102.9	101.8	99.2	97.1	94.6	99.6
1900.....	107.7	109.7	107.7	105.3	104.4	94.3	99.7
1901.....	117.9	121.0	117.5	110.2	118.1	94.4	99.4
1902.....	128.3	135.6	132.5	119.4	134.3	94.9	99.4
1903.....	127.0	139.8	129.0	121.3	126.7	101.2	100.2
1904.....	124.0	137.9	125.8	118.4	117.3	119.9	103.9
1905.....	126.6	138.8	126.0	118.5	116.6	119.9	104.5

Under cattle products are shown the three articles, beef, fresh, roasts; beef, fresh, steaks, and beef, salt. The price of each of these three articles was higher in 1891 than in 1890; that of the two descriptions of fresh beef was lower, and that of salt beef was higher in 1892 than in 1891; prices of roasts were lower and of steaks and salt beef higher in 1893 than in 1892; all three of the articles show lower prices in 1894 than in 1893; in each year from 1895 to 1902, inclusive, the price of each of the three articles increased; all were lower in 1903 than in 1902; prices of roasts and salt beef were lower and steaks higher in 1904 than in 1903; the price of each of these three articles was lower in 1905 than in 1904.

In the group of hog products, all of the 5 articles take the same course in each of the six years, 1891 to 1896; in 1897 all except lard were higher than in 1896; in 1898 all except salt ham were higher than in 1897; in each of the four years, 1899 to 1902, all of the 5 articles were higher than in the year immediately preceding; in 1903 fresh pork, dry or pickled pork, and lard were lower, while bacon and ham were higher than in 1902; in 1904 all were lower than in 1903; in 1905 all except lard were higher than in 1904.

In connection with this report on retail prices it is interesting to verify the truth of the statement which has often been made, that retail prices usually follow the wholesale but do not always vary in the same proportion. The table which follows shows the relative wholesale prices of food (simple averages of 53 articles from 1890 to 1892 and in 1904 and 1905, and of 54 articles from 1893 to 1903) and the relative retail prices of food (simple averages of 30 articles). The figures for wholesale prices are from Bulletin 63 of this Bureau.

RELATIVE WHOLESALE AND RETAIL PRICES OF FOOD IN THE UNITED STATES, 1890 TO 1905.

[The wholesale prices are from Bulletin 63 of the Bureau of Labor and are simple averages of 53 articles from 1890 to 1892 and in 1904 and 1905, and of 54 articles from 1893 to 1903. The retail prices are simple averages of 30 articles. Average price for 1890-1899=100.0.]

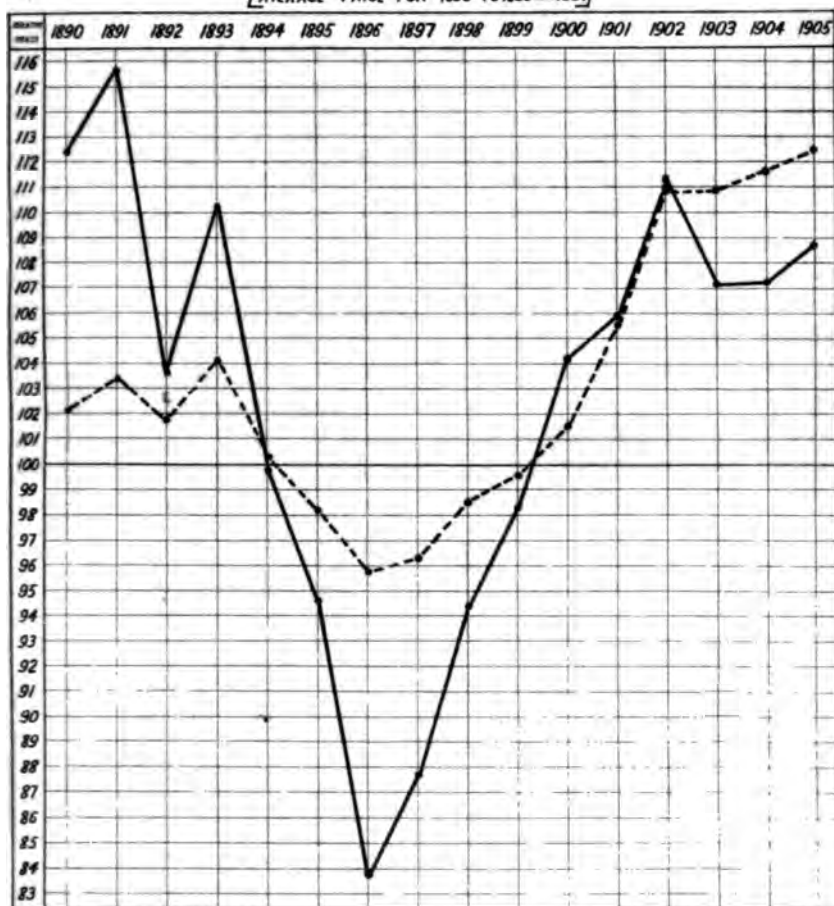
Year.	Relative wholesale prices of food.	Relative retail prices of food.	Year.	Relative wholesale prices of food.	Relative retail prices of food.
1890.....	112.4	102.1	1898.....	94.4	98.5
1891.....	115.7	103.4	1899.....	98.3	99.6
1892.....	103.6	101.8	1900.....	104.2	101.5
1893.....	110.2	104.1	1901.....	105.9	105.5
1894.....	99.8	100.3	1902.....	111.3	110.9
1895.....	94.6	98.2	1903.....	107.1	110.9
1896.....	83.8	95.8	1904.....	107.2	111.6
1897.....	87.7	96.3	1905.....	108.7	112.5

The facts presented in this table are clearly shown in the accompanying graphic table.

From this table it is seen that both wholesale and retail prices of food were higher in 1891 than in 1890, the wholesale, however, showing a much greater advance; both wholesale and retail prices were

RELATIVE WHOLESALE AND RETAIL PRICES OF FOOD
in the UNITED STATES, 1890 to 1905.

[AVERAGE PRICE FOR 1890 to 1899 = 100.]



— WHOLESALE PRICES (SIMPLE AVERAGE OF 54 ARTICLES.)

- - - RETAIL PRICES (SIMPLE AVERAGE OF 30 ARTICLES.)

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lower in 1892 than in 1891, the decline being much greater in wholesale than in retail; both were higher in 1893 than in 1892; both lower in 1894 than in 1893; both lower in 1895 than in 1894; both lower in 1896 than in 1895, the decline in wholesale being much greater than in retail; both were higher in each of the years from 1897 to 1902 than in the year immediately preceding; wholesale prices were lower in 1903 than in 1902, while retail prices remained on the same level; wholesale prices were slightly higher in 1904 than in 1903, while retail prices made a more marked advance; both wholesale and retail prices were higher in 1905 than in 1904.

No decided difference in the comparison is shown when articles for which prices not quoted in both the wholesale and retail price compilations are eliminated and the average prices of the 25 articles or groups of articles of food common to both the wholesale and retail price investigations made by this Bureau are used.

It will now be interesting to consider retail prices in connection with certain information secured from the detailed schedules of cost of living furnished by 2,567 workingmen's families and published in the Eighteenth Annual Report of this Bureau. The total number of persons in the 2,567 families was 13,643. The table which follows shows, by geographical divisions, the total number of families reporting expenditures in detail, average size of family and average income, average expenditure for all purposes, and average expenditure for food per family for the year 1901:

NUMBER OF FAMILIES, AVERAGE SIZE OF FAMILY, AVERAGE INCOME PER FAMILY, AVERAGE EXPENDITURE PER FAMILY FOR ALL PURPOSES, AND AVERAGE EXPENDITURE PER FAMILY FOR FOOD, BY GEOGRAPHICAL DIVISIONS, 1901.

Geographical division.	Families.	Average size of family.	Average income per family.	Average expenditure per family for all purposes.	Average expenditure per family for food
North Atlantic States.....	1,415	5.25	\$834.83	\$778.04	\$338.10
South Atlantic States.....	219	5.30	762.78	700.62	298.64
North Central States.....	721	5.46	842.60	785.95	321.60
South Central States.....	122	5.65	715.46	690.11	292.68
Western States.....	90	4.69	891.82	751.46	308.53
United States.....	2,567	5.31	\$27.19	768.54	326.90

A marked difference in conditions is seen by comparing the geographical divisions. The average family income varied from \$715.46 in the South Central States to \$891.82 in the Western States. The average family expenditure for all purposes was \$690.11 in the South Central States and \$785.95 in the North Central States. The average family expenditure for food was \$292.68 in the South Central States and \$338.10 in the North Atlantic States.

The average expenditure for food, when compared with the average expenditure for all purposes, does not vary materially in the five

divisions. In the North Atlantic States the average expenditure for food was 43.46 per cent of the average expenditure for all purposes; in the South Atlantic States, 42.63 per cent; in the North Central States, 40.92 per cent; in the South Central States, 42.41 per cent; in the Western States, 41.06 per cent, and in the United States, considered as a whole, 42.54 per cent.

The table which follows shows, for the 2,567 families reporting expenditures in detail, the average amount expended per family for each of the principal items entering into the cost of living, and also the per cent which the amount expended for each item is of the total family expenditure:

AVERAGE EXPENDITURE OF 2,567 WORKINGMEN'S FAMILIES FOR EACH OF THE PRINCIPAL ITEMS ENTERING INTO COST OF LIVING, AND PER CENT OF AVERAGE TOTAL EXPENDITURE, 1901.

Items of expenditure.	Expenditure based on all families.	
	Average.	Per cent of total expenditure.
Food.....	\$320.90	42.54
Rent.....	99.49	12.95
Mortgage:		
Principal.....	a 8.15	1.06
Interest.....	b 3.98	.52
Fuel.....	32.23	4.19
Lighting.....	8.15	1.06
Clothing:		
Husband.....	33.73	4.39
Wife.....	26.03	3.39
Children.....	48.04	6.26
Taxes.....	5.79	.75
Insurance:		
Property.....	1.53	.20
Life.....	19.44	2.53
Organizations:		
Labor.....	3.87	.50
Other.....	5.18	.67
Religious purposes.....	7.62	.99
Charity.....	2.39	.31
Furniture and utensils.....	26.31	3.42
Books and newspapers.....	8.35	1.09
Amusements and vacation.....	12.28	1.60
Intoxicating liquors.....	12.44	1.62
Tobacco.....	10.93	1.42
Sickness and death.....	20.54	2.67
Other purposes.....	45.13	5.87
Total.....	768.54	100.00

a Including interest paid by 13 families.

b Not including interest paid by 13 families, included in principal.

The following table shows for each of the geographical divisions and for the United States the average quantity per family of certain principal articles of food consumed in one year. These averages are based on all families from which detailed statements were secured in each geographical division.

AVERAGE QUANTITY PER WORKINGMAN'S FAMILY OF CERTAIN PRINCIPAL ARTICLES OF FOOD CONSUMED IN 1901, BY GEOGRAPHICAL DIVISIONS.

Article.	Unit.	North Atlantic States, 1,415 families.	South Atlantic States, 219 families.	North Central States, 721 families.	South Central States, 122 families.	Western States, 90 families.	United States, 2,567 families.
Fresh beef.....	Pounds.	352.2	306.8	363.5	317.4	348.4	349.7
Salt beef.....	Pounds.	75.3	9.4	21.3	3.5	3.8	48.6
Fresh hog products.....	Pounds.	103.4	85.3	152.6	128.1	28.4	114.2
Salt hog products.....	Pounds.	95.2	222.0	87.3	248.7	70.6	110.5
Other meat.....	Pounds.	98.1	28.1	68.8	11.2	37.8	77.7
Poultry.....	Pounds.	67.2	73.6	71.3	53.0	53.5	67.7
Fish.....	Pounds.	98.9	66.1	56.5	39.5	57.5	79.9
Eggs.....	Dozen.	85.8	90.6	88.3	85.0	39.8	85.2
Milk.....	Quarts.	396.3	191.9	348.2	220.8	324.4	354.5
Butter.....	Pounds.	118.9	102.1	124.0	88.9	108.9	117.1
Cheese.....	Pounds.	15.9	15.2	17.4	18.9	3.8	16.0
Lard.....	Pounds.	73.8	119.5	89.1	143.3	48.5	84.4
Ten.....	Pounds.	12.9	8.2	8.5	4.9	5.6	10.6
Coffee.....	Pounds.	38.5	60.7	57.5	71.4	25.2	46.8
Sugar.....	Pounds.	282.8	240.4	253.1	245.8	267.2	268.5
Molasses.....	Gallons.	3.2	4.6	3.4	6.2	4.0	3.6
Flour and meal.....	Pounds.	624.0	851.8	718.2	979.5	452.3	680.8
Bread.....	Loaves.	310.2	197.0	165.6	199.8	255.2	252.7
Rice.....	Pounds.	22.2	49.1	21.8	47.2	10.3	25.1
Potatoes.....	Bushele.	13.8	11.1	18.3	13.3	10.3	14.7

From this table it is seen that 349.7 pounds was the average quantity per family of fresh beef consumed in the 2,567 families investigated. In the North Atlantic States the average quantity was 352.2 pounds; in the South Atlantic States, 306.8 pounds; in the North Central States, 363.5 pounds; in the South Central States, 317.4 pounds, and in the Western States, 348.4 pounds.

In the five divisions a great difference is seen in the consumption of salt beef. The average quantity consumed per family in the North Atlantic States was 75.3 pounds; in the South Atlantic States, 9.4 pounds; in the North Central States, 21.3 pounds; in the South Central States, 3.5 pounds, and in the Western States, 3.8 pounds. The average for the United States was 48.6 pounds.

Of the more important articles salt hog products show the greatest variation in quantity consumed per family. The average consumption of these products in the North Atlantic States was 95.2 pounds; in the South Atlantic States, 222 pounds; in the North Central States, 87.3 pounds; in the South Central States, 248.7 pounds, and in the Western States, 76.6 pounds. The average for the 2,567 families investigated was 110.5 pounds.

The average quantity of sugar consumed per family varied but little in the different localities. In the North Atlantic States it was 282.8 pounds; in the South Atlantic States, 240.4 pounds; in the North Central States, 253.1 pounds; in the South Central States, 245.8 pounds, and in the Western States, 267.2 pounds. The average for the 2,567 families was 268.5 pounds.

Another table shows the average cost per family of the principal articles of food consumed in one year. These averages are based on all families from which detailed statements were secured in each of the geographical divisions.

AVERAGE COST PER WORKINGMAN'S FAMILY OF THE PRINCIPAL ARTICLES OF FOOD CONSUMED IN 1901, BY GEOGRAPHICAL DIVISIONS.

Article.	North Atlantic States, 1,415 families.	South Atlantic States, 219 families.	North Central States, 721 families.	South Central States, 122 families.	Western States, 90 families.	United States, 2,567 families.
Fresh beef.....	\$54.27	\$41.08	\$46.06	\$37.84	\$54.13	\$50.05
Salt beef.....	8.18	1.13	2.20	.33	.66	5.26
Fresh hog products.....	12.83	10.48	18.39	15.60	4.04	14.02
Salt hog products.....	12.19	26.79	11.25	28.09	11.06	13.89
Other meat.....	12.26	3.86	8.68	1.40	5.35	9.78
Poultry.....	10.18	8.44	9.34	5.93	7.15	9.49
Fish.....	10.06	5.21	5.67	3.95	6.90	8.01
Eggs.....	18.44	15.55	15.24	13.20	11.01	16.79
Milk.....	24.29	13.02	19.67	12.25	20.46	21.32
Butter.....	29.77	25.76	28.48	21.74	31.81	28.76
Cheese.....	2.55	2.65	2.87	3.36	.69	2.62
Lard.....	8.15	12.72	10.34	14.31	5.44	9.35
Tea.....	6.33	4.40	4.22	2.69	3.43	5.30
Coffee.....	9.70	10.58	12.91	12.22	8.06	10.74
Sugar.....	16.67	14.15	14.63	15.70	14.49	15.76
Molasses.....	1.51	2.01	1.53	2.93	3.28	1.69
Flour and meal.....	16.24	21.10	16.47	22.68	8.85	16.76
Bread.....	15.41	9.34	8.11	9.55	11.93	12.44
Rice.....	1.94	2.77	1.92	3.70	.91	2.05
Potatoes.....	13.77	9.29	13.01	11.54	9.84	12.93
Other vegetables.....	16.08	20.75	22.03	16.62	35.41	18.55
Fruit.....	15.31	15.22	17.15	11.52	40.53	16.52
Vinegar, pickles, and condiments.....	4.06	3.21	4.80	4.41	1.49	4.12
Other food.....	17.91	19.13	26.63	21.12	11.61	20.40
Total.....	338.10	298.64	321.60	292.68	308.53	326.90

From this table it is seen that the average cost per family of the fresh beef consumed was \$54.27 in the North Atlantic States, \$41.08 in the South Atlantic States, \$46.06 in the North Central States, \$37.84 in the South Central States, and \$54.13 in the Western States. The average cost for the 2,567 families investigated was \$50.05. The average cost per family of salt hog products consumed was \$12.19 in the North Atlantic States, \$26.79 in the South Atlantic States, \$11.25 in the North Central States, \$28.09 in the South Central States, and \$11.06 in the Western States. The average for all families investigated was \$13.89.

The average cost of all food consumed during the year was \$338.10 in the North Atlantic States, \$298.64 in the South Atlantic States, \$321.60 in the North Central States, \$292.68 in the South Central States, and \$308.53 in the Western States.

The average expenditure for food in the families investigated in the North Atlantic States was 15.52 per cent above the average expenditure in the families investigated in the South Central States. The average expenditure for the 2,567 families in the United States was \$326.90.

From the table just shown another table has been computed, showing the relative importance, as measured by the average family

expenditure, of the principal articles of food consumed in one year. For the purpose of computing the relative importance of the various articles, the total value of food consumed is considered equal to 10,000. The table follows:

RELATIVE IMPORTANCE IN WORKINGMEN'S FAMILIES OF THE PRINCIPAL ARTICLES OF FOOD CONSUMED IN 1901, BY GEOGRAPHICAL DIVISIONS.

[Total value of food consumed=10,000.]

Article.	North Atlantic States, 1,415 families.	South Atlantic States, 219 families.	North Central States, 721 families.	South Central States, 122 families.	Western States, 90 families.	United States, 2,567 families.
Fresh beef.....	1,605	1,375	1,432	1,293	1,754	1,531
Salt beef.....	242	38	68	11	21	161
Fresh hog products.....	379	351	572	533	131	429
Salt hog products.....	361	897	350	960	359	425
Other meat.....	363	129	270	48	173	299
Poultry.....	301	283	290	203	232	290
Fish.....	298	174	176	135	224	245
Eggs.....	545	521	474	451	357	514
Milk.....	718	436	612	418	663	652
Butter.....	881	863	886	743	1,031	880
Cheese.....	75	89	89	115	22	80
Lard.....	241	426	322	489	176	286
Tea.....	187	147	131	92	111	162
Coffee.....	287	354	401	417	261	328
Sugar.....	493	474	455	536	470	482
Molasses.....	45	67	48	100	106	52
Flour and meal.....	480	706	512	775	287	513
Bread.....	456	313	252	326	387	381
Rice.....	57	93	60	126	30	63
Potatoes.....	407	311	405	394	319	395
Other vegetables.....	476	695	685	568	1,148	577
Fruit.....	453	510	533	394	1,314	505
Vinegar, pickles, and condiments.....	120	107	149	151	48	126
Other food.....	530	641	828	722	376	624
Total.....	10,000	10,000	10,000	10,000	10,000	10,000

This table shows that upon the basis of the reported expenditures for food in the 2,567 families, the total value of food being represented by 10,000, fresh beef has a value of 1,531; salt beef, 161; fresh hog products, 429; salt hog products, 425; other meat, 299; poultry, 290; fish, 245; eggs, 514; milk, 652; butter, 880; cheese, 80; lard, 286; tea, 162; coffee, 328; sugar, 482; molasses, 52; flour and meal, 513; bread, 381; rice, 63; potatoes, 395; other vegetables, 577; fruit, 505; vinegar, pickles, and condiments, 126, and other food, 624. It should be understood that these figures of relative importance are based on the cost of the various articles; that is, for every \$100 spent for food, \$15.31 was spent for fresh beef, \$1.61 for salt beef, etc.

It is interesting to note that in the 2,567 families fresh hog products and salt hog products have almost equal importance, and that the two combined have almost exactly one-half the importance of fresh beef and salt beef combined. Eggs are practically equal in importance to flour and meal. Tea has one-half the importance of coffee, and sugar is almost equal in importance to the sum of tea and coffee. Butter is almost equal in importance to the sum of flour and meal and bread.

Marked differences in the importance of the various articles are shown in the 5 groups of States. In the North Atlantic States fresh beef has a relative importance of 1,605; in the South Atlantic States, 1,375; in the North Central States, 1,432; in the South Central States, 1,293, and in the Western States, 1,754. The relative importance of salt beef is 11 in the South Central States, while in the North Atlantic States it is 242, or 22 times its importance in the South Central States.

The importance of salt hog products is 361 in the North Atlantic States, 897 in the South Atlantic States, 350 in the North Central States, 960 in the South Central States, and 359 in the Western States. The importance of sugar does not show a great difference; it is 493 in the North Atlantic States, 474 in the South Atlantic States, 455 in the North Central States, 536 in the South Central States, and 470 in the Western States.

By the use of this table a series of index numbers, or relative prices, has been computed in which the principal articles of food have been given the weight or importance shown in the preceding table, thus showing the course of retail prices from year to year when the various articles are weighted according to average family consumption.

Certain groupings of the articles for which retail prices were secured are necessary in order to bring them within the classification reported in the family budgets.

Fresh beef is represented by the two articles—one, roasts, and the other, steaks; salt hog products by the three articles—salt bacon, dry or pickled pork, and salt ham; other meat by the two articles—mutton and lamb, and veal; poultry by the single article—chickens; fish by fresh fish and salt fish; flour and meal by wheat flour and corn meal. However, in obtaining an average index number to be used in weighting by relative importance, wheat flour is given twice the importance of corn meal. It would be necessary to give wheat flour even a greater weight as compared with corn meal but for the fact that bread is considered separately from flour and meal. Fruit is represented by two articles only—evaporated apples and prunes—as it was impossible to secure complete series of prices of other descriptions of fruits. Vinegar, pickles, and condiments are represented by the single article vinegar.

This list includes all articles for which retail prices were secured except beans. The groupings are as follows:

Fresh beef:

Roasts.
Steaks.

Salt beef.

Fresh hog products:

Pork, fresh.

Salt hog products:

Pork, salt, bacon.
Pork, salt, dry or pickled.
Pork, salt, ham.

Other meat:

Mutton and lamb.
Veal.

Poultry:	Flour and meal:
Chickens (full grown), dressed.	Flour, wheat (2).
Fish:	Corn meal (1).
Fresh.	Bread.
Salt.	Rice.
Eggs.	Potatoes.
Milk, fresh, unskimmed.	Fruit:
Butter.	Apples, evaporated.
Cheese.	Prunes.
Lard.	Vinegar, pickles, and condiments:
Tea.	Vinegar.
Coffee.	Other food:
Sugar.	The same index as for "total
Molasses.	food, except meat."

The figures showing the relative importance of the various articles of food are based on the family consumption for 1901. There is no doubt that the relative importance of articles varied slightly from year to year, but no figures are available covering the 16 years, therefore the relative consumption of the various articles of food is considered the same for each of the years.

The method of computing the series of relative prices weighted according to family consumption, for each of the geographical divisions and for the United States considered as a whole, can best be explained by illustrating the process.

The following table is for the United States for the year 1905:

TABLE ILLUSTRATING THE METHOD OF COMPUTING THE RELATIVE RETAIL PRICE OF FOOD IN THE UNITED STATES IN 1905, THE VARIOUS ARTICLES BEING WEIGHTED ACCORDING TO AVERAGE CONSUMPTION IN 2,567 WORKINGMEN'S FAMILIES.

Article.	Relative importance.	Relative price.	Result.
Fresh beef.....	1,531	112.6	172,390.6
Salt beef.....	161	107.9	17,371.9
Fresh hog products.....	429	126.6	54,311.4
Salt hog products.....	425	127.8	54,315.0
Other meat.....	299	117.8	35,222.2
Total meat.....	2,845	117.3	333,611.1
Poultry.....	290	123.6	35,844.0
Fish.....	245	111.9	27,415.5
Eggs.....	514	131.6	67,642.4
Milk.....	652	107.0	69,764.0
Butter.....	880	112.7	99,176.0
Cheese.....	80	110.9	8,872.0
Lard.....	286	116.6	33,347.6
Tea.....	162	105.7	17,123.4
Coffee.....	328	93.6	30,700.8
Sugar.....	482	103.9	50,079.8
Molasses.....	52	104.4	5,428.8
Flour and meal.....	513	120.7	61,919.1
Bread.....	381	104.5	39,814.5
Rice.....	63	102.6	6,463.8
Potatoes.....	395	110.2	43,529.0
Fruit.....	505	93.7	47,318.5
Vinegar, pickles, and condiments.....	126	100.3	12,637.8
Total, except meat.....	5,954	110.4	657,077.0
Other food.....	624	110.4	68,889.6
Meat.....	2,845	117.3	333,611.1
Grand total.....	9,423	112.4	1,059,577.7

The sum of the numbers indicating the relative importance of the various kinds of meat is 2,845, the relative importance in family consumption of all meat. The sum of the results which were obtained by multiplying the relative price of each of the kinds of meat by the number indicating its relative importance is 333,611.1. Therefore to obtain the relative price of the group, meat, for the United States in 1905, the sum of the results is divided by 2,845, the relative importance of the meat group. The quotient, 117.3, shows the relative price of the meat group in 1905 when weighted according to family consumption.

Each of the remaining 17 articles or classes of articles is taken up in the same way as were the several kinds of meat, the relative price for the United States in 1905 as shown in Table II being multiplied by the relative importance of the article, as shown in the table on page 191. For the group of 17 articles comprised in "total, except meat," the relative price, 110.4, was found in the same way as was the relative price for all meat, the sum of the results, 657,077.0, being divided by 5,954, the sum of the numbers indicating relative importance. One other group, designated "other food," remains to be considered. As the various descriptions of meat most generally used and also a class, "other meat," were included in the total meat, it is presumed that all meat was included in that total and that the food which in the family budgets was classed as "other food" must be more nearly related to the various articles considered in the group "total food, except meat," and therefore "other food" was given the same relative price as "total food, except meat."

The grand total of the numbers indicating relative importance was 9,423, and the sum of the results obtained by multiplying the relative price of each of the various articles considered by its relative importance was 1,059,577.7. The sum of the results divided by 9,423 is 112.4, the relative price of food for the United States in 1905, when the various articles are weighted according to the reported consumption in 2,567 families. The class "other vegetables" has a relative importance of 577, but it was impossible to collect retail prices of articles to represent properly this class for the sixteen years, hence it was not possible to include that class in this table, and therefore the grand total of relative importance, 9,423, lacks 577 of making the 10,000 total importance of food indicated in the table on page 191. That is, 94.23 per cent of the total food consumption per family is represented in this table.

It is interesting to see that the relative price for 1905, weighted according to family consumption and including 94.23 per cent of the total food consumption, differed but little from the simple average of the 30 articles of food shown on page 181, the weighted price being 112.4 and the simple average 112.5. It should not be understood

that the 30 articles for which retail prices were secured, and which are enumerated on page 172, comprise 94.23 per cent of the food consumed, but these articles represent groups or classes which do, according to the 2,567 family budgets, comprise 94.23 per cent of the food consumed.

The weighted relative price for the United States for each of the years from 1890 to 1904 was found in the same way as has been explained for 1905.

The same method was employed in computing the weighted relative prices for each of the five geographical divisions as for the United States. The relative importance of the various articles, or classes of articles, in the different geographical divisions is shown in the table on page 191.

The table which follows shows for each of the 5 geographical divisions and for the United States the relative price of food for each year from 1890 to 1905. In the first column under each division is shown the simple average of the relative prices of the 30 articles, and in the second column under each division is shown the relative prices weighted according to the average consumption of the various articles of food in the workingmen's families investigated in the States included in the division. The relative prices obtained by the two methods are presented so that the reader can make such use or comparison of them as he desires.

RELATIVE RETAIL PRICES OF FOOD, SIMPLE AND WEIGHTED AVERAGES, BY GEOGRAPHICAL DIVISIONS, 1890 TO 1905.

[Average price for 1890-1899=100.0.]

Year.	North Atlantic States.		South Atlantic States.		North Central States.		South Central States.		Western States.		United States.	
	Simple.	Weighted.	Simple.	Weighted.	Simple.	Weighted.	Simple.	Weighted.	Simple.	Weighted.	Simple.	Weighted.
1890.....	101.9	102.3	100.7	101.2	102.3	102.3	101.1	102.1	105.4	107.7	102.1	102.4
1891.....	102.9	103.2	101.5	102.1	104.1	104.5	102.9	103.6	106.2	108.7	103.4	103.8
1892.....	102.0	102.1	100.6	101.1	101.7	101.8	100.6	100.7	104.4	105.2	101.8	101.9
1893.....	104.3	104.4	102.1	103.2	105.0	105.4	102.9	103.5	102.7	102.9	104.1	104.4
1894.....	99.9	99.2	100.3	100.6	100.9	100.6	99.9	100.0	99.4	99.3	100.3	99.7
1895.....	98.2	97.7	99.5	98.7	98.3	98.0	98.2	98.1	97.3	96.7	98.2	97.8
1896.....	96.2	97.0	97.5	96.8	94.9	94.6	96.2	96.1	93.9	93.2	95.8	95.5
1897.....	96.9	96.9	97.8	97.1	95.3	95.6	97.2	97.3	94.2	92.7	96.3	96.3
1898.....	98.3	98.8	99.4	99.3	98.1	98.4	99.9	98.8	96.7	95.2	98.5	98.7
1899.....	99.3	99.5	100.6	100.5	99.4	98.9	101.0	99.9	99.8	98.5	99.6	99.5
1900.....	101.3	101.2	102.2	102.4	101.7	100.8	103.3	101.1	100.1	98.1	101.5	101.1
1901.....	104.4	104.7	106.6	106.9	106.7	106.1	108.1	106.9	102.0	99.9	105.5	105.2
1902.....	110.0	110.5	110.8	111.8	112.1	111.7	114.1	113.5	106.9	104.4	110.9	110.9
1903.....	110.4	110.1	110.1	111.2	112.0	111.0	114.0	113.5	108.1	103.7	110.9	110.3
1904.....	111.2	111.7	110.2	111.9	112.6	112.1	115.0	115.0	109.4	104.9	111.6	111.7
1905.....	111.8	112.1	111.2	113.0	114.0	113.1	115.9	115.9	110.0	105.7	112.5	112.4

It is extremely interesting to compare the results under the two methods. In the North Atlantic States there is a difference of 0.4 in 1890, 0.3 in 1891, 0.1 in 1892, 0.1 in 1893, 0.7 in 1894, 0.5 in 1895, 0.8 in 1896, nothing in 1897, 0.5 in 1898, 0.2 in 1899, 0.1 in 1900, 0.3 in 1901, 0.5 in 1902, 0.3 in 1903, 0.5 in 1904, and 0.3 in 1905. The

greatest difference in results obtained under the two methods is found in the Western States. In the United States, considered as a whole, there is a difference under the two methods of 0.3 in 1890, 0.4 in 1891, 0.1 in 1892, 0.3 in 1893, 0.6 in 1894, 0.4 in 1895, 0.3 in 1896, nothing in 1897, 0.2 in 1898, 0.1 in 1899, 0.4 in 1900, 0.3 in 1901, nothing in 1902, 0.6 in 1903, 0.1 in 1904, and 0.1 in 1905. This shows a difference of 0.6 in two years, of 0.4 in three years, of 0.3 in four years, of 0.2 in one year, of 0.1 in four years, and of nothing in two years.

The following table shows the average price per pound, dozen, quart, etc., in 1901, of various articles of food. One column shows the average price paid by the 2,567 workingmen's families investigated in the United States, as reported by the housewife or other member of the family—that is, the average amount paid per family for each article was divided by the average quantity of the article consumed. Another column shows the average price computed from the reports obtained from the retail merchants. The average price shown for fresh beef in the last column, for instance, is the simple average of the prices quoted on the 614 schedules for fresh beef; the average for salt beef is the simple average of the prices quoted on the 121 schedules for that article, etc.

AVERAGE PRICE PER POUND, DOZEN, QUART, ETC., OF CERTAIN PRINCIPAL ARTICLES OF FOOD, 1901.

Article.	Unit.	Average price—	
		Com- puted from 2,567 family budgets.	Com- puted from retail- price sched- ules.
Fresh beef.....	Pound..	\$0.1431	\$0.1470
Salt beef.....	Pound..	.1082	.0931
Fresh hog products.....	Pound..	.1228	.1300
Salt hog products.....	Pound..	.1257	.1457
Other meat.....	Pound..	.1259	.1430
Poultry.....	Pound..	.1402	.1529
Fish.....	Pound..	.1003	.1166
Eggs.....	Dozen..	.1971	.2194
Milk.....	Quart..	.0601	.0617
Butter.....	Pound..	.2456	.2644
Cheese.....	Pound..	.1638	.1634
Lard.....	Pound..	.1108	.1190
Tea.....	Pound..	.5000	.5455
Coffee.....	Pound..	.2295	.2445
Sugar.....	Pound..	.0587	.0587
Molasses.....	Gallon..	.4694	.5136
Flour and meal.....	Pound..	.0246	(a)
Bread.....	Loaf....	.0492	.0545
Rice.....	Pound..	.0817	.0837
Potatoes.....	Bushel..	.8796	.9308

a Flour, \$0.0250; corn meal, \$0.0230.

The average price per pound for fresh beef reported paid by the 2,567 families was \$0.1431; the simple average price from the 614 schedules for fresh beef secured from the retail merchants was \$0.1470. The average price per pound for salt beef reported in the family budgets was \$0.1082; the average from the 121 schedules for salt beef secured from the retail merchants was \$0.0931. In the family budget salt beef included dried beef, while the prices from retail merchants are for corned beef. The prices for the other articles can be compared by referring to the table.

It will be noticed that for all articles except four—salt beef, cheese, sugar, and flour and meal—the average price computed from the family budgets is less than the reports of retail merchants. In explanation of this difference, two suggestions may be offered. The first is, that when the price of any article of food advances there is a tendency on the part of the consumers to use some substitute for that article. Therefore, if an article is low for six months of the year and high for the remaining six months the greater quantity consumed by the family may have been purchased during the months when the price was low, thus producing a lower average for the year than would the simple average of twelve monthly quotations. A second suggestion is that prices secured from retail merchants were usually for some standard grade or brand of article, while in some families investigated it is no doubt true that articles of a lower grade were purchased at times.

The table which follows shows for 20 articles of food the amount which could have been bought for one dollar in each of the years 1890 to 1905.

The table is based on the average price reported paid by the 2,567 families in 1901, the quantities for the other years being calculated from the relative retail prices for each of the articles. Flour and meal were combined on the family budgets; therefore the average price reported for these two articles by the retail merchants was used in computing the number of pounds of each which could have been bought for one dollar.

No detailed description of the various articles can be given except that they were of the grade reported used by the 2,567 working-men's families reporting expenditures in detail.

The table follows:

AMOUNT OF VARIOUS ARTICLES OF FOOD OF THE GRADE USED BY THE 2,567 WORKINGMEN'S FAMILIES REPORTING EXPENDITURES IN DETAIL, WHICH COULD HAVE BEEN BOUGHT FOR ONE DOLLAR IN EACH YEAR FROM 1890 TO 1905.

[Based on the average price paid by the 2,567 workingmen's families in 1901, and the course of retail prices.]

Year.	Fresh beef, pounds.	Salt beef, pounds.	Fresh pork, pounds.	Salt pork, pounds.	Poultry (chickens), pounds.	Fish, pounds.	Eggs, dozens.	Milk, quarts.	Butter, pounds.	Cheese, pounds.
1890.....	7.81	10.06	9.89	9.58	7.25	10.00	5.33	16.74	4.23	6.39
1891.....	7.78	9.97	9.72	9.41	7.06	10.02	5.01	16.74	3.95	6.29
1892.....	7.79	9.85	9.55	9.20	7.08	9.97	5.02	16.72	3.93	6.22
1893.....	7.81	9.77	8.97	8.49	7.05	9.91	4.96	16.76	3.82	6.20
1894.....	7.89	9.91	9.43	8.98	7.45	9.90	5.56	16.79	4.13	6.21
1895.....	7.84	9.84	9.63	9.33	7.46	10.15	5.40	16.82	4.33	6.36
1896.....	7.81	9.82	9.84	9.58	7.56	10.20	5.77	16.84	4.53	6.45
1897.....	7.73	9.72	9.83	9.48	7.81	10.35	5.86	16.87	4.51	6.38
1898.....	7.61	9.60	9.73	9.43	7.59	10.12	5.57	16.92	4.42	6.47
1899.....	7.47	9.50	9.44	9.13	7.21	10.07	5.30	17.01	4.30	6.16
1900.....	7.28	9.45	8.91	8.60	7.29	10.11	5.36	16.84	4.14	6.07
1901.....	6.99	9.24	8.14	7.96	7.13	9.97	5.07	16.64	4.07	6.11
1902.....	6.54	8.45	7.48	7.16	6.49	9.71	4.50	16.29	3.77	5.88
1903.....	6.86	9.01	7.56	7.12	6.20	9.35	4.28	15.90	3.79	5.77
1904.....	6.85	9.05	7.74	7.26	6.08	9.19	4.09	15.83	3.85	5.88
1905.....	6.88	9.09	7.58	7.24	5.94	9.02	4.07	15.72	3.73	5.69

Year.	Lard, pounds.	Tea, pounds.	Coffee, pounds.	Sugar, pounds.	Molasses, gallons.	Flour, wheat, pounds.	Corn meal, pounds.	Bread, one-pound loaves.	Rice, pounds.	Potatoes, bushels.
1890.....	10.86	2.13	3.75	14.80	2.06	34.42	46.57	20.15	12.51	1.22
1891.....	10.69	2.13	3.76	17.09	2.12	33.56	42.45	20.15	12.36	1.14
1892.....	10.29	2.13	3.81	18.24	2.13	35.93	44.27	20.15	12.51	1.39
1893.....	9.05	2.13	3.77	17.29	2.14	39.29	45.17	20.19	12.87	1.19
1894.....	9.98	2.16	3.83	18.71	2.15	42.57	45.56	20.23	12.80	1.30
1895.....	10.65	2.17	3.89	19.12	2.18	42.43	46.20	20.27	12.82	1.45
1896.....	11.53	2.16	3.97	18.17	2.19	40.73	49.02	20.23	13.10	1.73
1897.....	11.88	2.17	4.18	18.34	2.21	36.20	49.70	20.21	12.94	1.43
1898.....	11.36	2.12	4.34	17.33	2.20	35.16	49.02	20.25	12.46	1.26
1899.....	10.98	2.04	4.37	17.26	2.20	39.92	48.97	20.29	12.37	1.39
1900.....	10.21	2.02	4.34	16.73	2.11	40.04	47.81	20.27	12.37	1.42
1901.....	9.03	2.00	4.36	17.04	2.13	40.00	43.48	20.33	12.24	1.14
1902.....	7.94	1.99	4.41	18.28	2.11	39.79	39.20	20.33	12.24	1.14
1903.....	8.42	2.01	4.43	18.26	2.08	37.31	38.58	20.17	12.19	1.16
1904.....	9.09	2.02	4.31	17.22	2.07	31.49	38.33	19.45	12.47	1.10
1905.....	9.15	2.02	4.22	16.89	2.07	31.49	38.11	19.34	12.35	1.21

From this table it is seen that for one dollar 7.81 pounds of fresh beef (of the grade consumed by the 2,567 families investigated) could have been bought in 1890, 7.78 pounds in 1891, 7.79 pounds in 1892, 7.81 pounds in 1893, 7.89 pounds in 1894, 7.84 pounds in 1895, 7.81 pounds in 1896, 7.73 pounds in 1897, 7.61 pounds in 1898, 7.47 pounds in 1899, 7.28 pounds in 1900, 6.99 pounds in 1901, 6.54 pounds in 1902, 6.86 pounds in 1903, 6.85 pounds in 1904, and 6.88 pounds in 1905.

The table which follows shows by geographical divisions the average food cost per family each year from 1890 to 1905. This table is based on the average food cost per family in 1901 as reported by the families investigated in each geographical division, and the course of retail prices of food as indicated by the relative prices weighted according to family consumption in that division.

In each of the divisions of States and in the United States as a whole it is considered in this table that the expenditure for each of the various articles bore the same relation to the total expenditure for food in each of the other years of the sixteen-year period covered by this investigation as in 1901.

The table follows:

AVERAGE FOOD COST PER WORKINGMAN'S FAMILY, BY GEOGRAPHICAL DIVISIONS, FOR EACH YEAR, 1890 TO 1905.

[Based on the average cost per family in 1901 and the course of retail prices of food as indicated by the relative prices weighted according to family consumption.]

Year.	North Atlantic States, 1,415 families.	South Atlantic States, 219 families.	North Central States, 721 families.	South Central States, 122 families.	Western States, 50 families.	United States, 2,567 families.
1890.....	\$330.35	\$282.72	\$310.08	\$279.54	\$332.61	\$318.20
1891.....	333.26	285.23	316.75	283.64	335.72	322.55
1892.....	329.70	282.44	308.57	275.71	324.90	316.65
1893.....	337.13	288.30	319.48	283.37	317.80	324.41
1894.....	320.34	279.36	304.93	273.79	306.68	309.81
1895.....	315.50	275.73	297.05	268.59	298.65	303.91
1896.....	313.23	270.42	286.74	263.11	287.84	296.76
1897.....	312.91	271.26	289.77	266.40	286.29	299.24
1898.....	319.05	277.41	298.26	270.50	294.01	306.70
1899.....	321.31	280.76	299.78	273.51	304.21	309.19
1900.....	326.80	286.07	305.54	276.80	302.97	314.16
1901.....	338.10	298.04	321.60	292.68	308.53	326.90
1902.....	356.83	312.33	338.57	310.75	322.43	344.61
1903.....	355.54	310.65	336.45	310.75	320.27	342.75
1904.....	360.70	312.61	339.79	314.86	323.97	347.10
1905.....	362.00	315.68	342.82	317.32	326.44	349.27

From this table it is seen that in the North Atlantic States the average food cost per family (assuming that food was purchased in the same quantity each year and that the expenditure for each of the various articles bore the same relation to the total expenditure for food in each of the years) was \$330.35 in 1890, \$333.26 in 1891, etc. The lowest cost was \$312.91 in 1897, and the highest was \$362 in 1905, a difference of \$49.09.

For the United States, considered as a whole, the average cost of food per family in 1890 was \$318.20. In 1896, the year of lowest prices, it fell to \$296.76; in 1905 it reached the highest point of the period, being \$349.27, a difference between 1896 and 1905 of \$52.51, or 17.7 per cent. The changes in the cost of living, as shown by this table, relate to food alone, representing 42.54 per cent of all family expenditures in the 2,567 families furnishing information.

For a comparison of the relative advance of retail prices of food and wages in the manufacturing and mechanical industries the reader is referred to the article on "Wages and hours of labor," pages 1 to 170 of this Bulletin. The increase in wages in many industries has exceeded the advance in food, but, as has been mentioned in previous numbers of the Bulletin, the increased cost of food has been felt by everyone, and perhaps more keenly by those on salaries, as the general tendency is to advance employees on salaries less rapidly than those employed by the day or week and whose services are contracted for at frequent intervals.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905.

APPLES, EVAPORATED, PER POUND.

State and locality.	Description.	Average price.	
		1904.	1905.
ALABAMA.			
Birmingham.....	Best.....	\$0.1250	\$0.1250
Montgomery.....	Best.....	.1250	.1250
	Apples, evaporated.....	.1000	.1017
	Medium.....	.1000	.1000
ARKANSAS.			
Little Rock.....	Best.....	.1250	.1250
	Medium.....	.1000	.1003
CALIFORNIA.			
Los Angeles.....	Good, loose.....	.1000	.1000
	Medium.....	.0850	.0850
San Francisco.....	Medium.....	.1000	.1000
	Medium.....	.1000	.1000
	Medium.....	.1000	.1000
	Medium.....	.1000	.1000
COLORADO.			
Denver.....	Best.....	.1250	.1250
	Medium.....	.1000	.1007
CONNECTICUT.			
New Haven.....	High grade.....	.1500	.1500
	Medium.....	.1000	.1200
	Medium.....	.1200	.1300
DELAWARE.			
Wilmington.....	Medium.....	.0800	.1050
	Medium, sold in 3-pound lots, Jan., 1904, to June, 1905.	.0833	.0956
DISTRICT OF COLUMBIA.			
Washington.....	Medium.....	.0800	.1000
	Medium.....	.1000	.1117
	Medium.....	.0800	.1075
FLORIDA.			
Jacksonville.....	Best.....	.1250	.1250
	Choice.....	.1000	.1058
	Good.....	.1000	.1250
GEORGIA.			
Atlanta.....	Medium.....	.1000	.1000
	Medium.....	.1000	.1017
	Medium.....	.1000	.1050
ILLINOIS.			
Chicago.....	Apples, evaporated.....	.1000	.1200
	Medium.....	.1125	.1300
	Medium.....	.1000	.1000
Peoria.....	Apples, evaporated.....	.0933	.1063
	Apples, evaporated.....	.1000	.1167
	Medium.....	.0867	.1217
INDIANA.			
Indianapolis.....	Best.....	.0800	.1000
	Medium.....	.1000	.1000
Terre Haute.....	Best.....	.1500	.1500
	Best.....	.1500	.1500
IOWA.			
Des Moines.....	Best.....	.1250	.1250
	Medium.....	.1000	.1000
Dubuque.....	Best.....	.1000	.1083
	Medium.....	.1000	.1000
KANSAS.			
Topeka.....	Best.....	.0875	.1000
	Medium.....	.0861	.0944
KENTUCKY.			
Louisville.....	Medium.....	.0757	.1014
	Medium.....	.1000	.1000
LOUISIANA.			
New Orleans.....	Best.....	.0917	.1067
	Best.....	.1000	.1083
	First grade.....	.1000	.1000
MAINE.			
Portland.....	Best.....	.1500	.1500
	No. 1.....	.1300	.1400

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

APPLES, EVAPORATED, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
MARYLAND.			
Baltimore.....	Best.....	\$0.1000	\$0.1275
	Medium.....	.0825	.0833
	Medium.....	.1000	.1000
MASSACHUSETTS.			
Boston.....	Best.....	.1200	.1367
	Good.....	.1200	.1250
	Medium.....	.0900	.0967
Fall River.....	Best.....	.1183	.1200
	Good.....	.1033	.1067
Lynn.....	Medium.....	.1200	.1275
	Medium.....	.1117	.1175
Malden.....	Medium.....	.0917	.1208
	Medium.....	.0908	.1058
Worcester.....	Medium.....	.1100	.1225
	Medium.....	.1050	.1133
MICHIGAN.			
Detroit.....	Best.....	.0900	.1050
	Good, sold in 3-pound lots.....	.0833	.0972
Grand Rapids.....	Good.....	.1000	.1000
	Medium.....	.1000	.1000
MINNESOTA.			
Duluth.....	Apples, evaporated.....	.1000	.1042
	Good.....	.0883	.1146
Minneapolis.....	Good.....	.1000	.1200
	Medium.....	.1000	.1000
St. Paul.....	Apples, evaporated.....	.0717	.0717
	Good.....	.0933	.1063
MISSOURI.			
Kansas City.....	Medium.....	.1104	.1146
	Medium.....	.0931	.1000
St. Louis.....	Good.....	.1000	.1063
	Good.....	.1000	.1063
	Medium.....	.1083	.1050
MONTANA.			
Butte.....	Best.....	.1250	.1292
	Best.....	.1250	.1250
NEBRASKA.			
Omaha.....	Best.....	.1000	.1000
	Best.....	.1250	.1250
NEW HAMPSHIRE.			
Manchester.....	No. 1.....	.1117	.1167
	No. 1.....	.0817	.1142
NEW JERSEY.			
Jersey City.....	Best.....	.1000	.1000
	Good.....	.1000	.1000
Trenton.....	Best.....	.1000	.1000
	Best.....	.1200	.1200
	Best.....	.1200	.1200
NEW YORK.			
Albany.....	Medium.....	.1000	.1000
	Medium.....	.1000	.1300
Brooklyn.....	Best.....	.1300	.1322
	Best.....	.1200	.1225
Buffalo.....	Best.....	.1000	.1067
	Medium.....	.1000	.1000
Flushing.....	Best.....	.1200	.1250
	Best.....	.1200	.1225
New York (a).....	Best.....	.1200	.1200
	Best.....	.1000	.1167
	Best.....	.1200	.1450
	Best.....	.1200	.1050
Rochester.....	Best.....	.1000	.1150
	Best.....	.1200	.1325
Syracuse.....	Best.....	.1000	.1000
	First grade.....	.1000	.1050
OHIO.			
Cincinnati.....	Best.....	.1500	.1500
	Medium.....	.1000	.1250
	Medium.....	.1000	.1200
Cleveland.....	Apples, evaporated.....	.1000	.1000
	Apples, evaporated.....	.1000	.1117
	Best.....	.1400	.1400

* Boroughs of Manhattan and Bronx only.

TABLE L.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

APPLES, EVAPORATED, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
OREGON.			
Portland.....	Medium.....	\$0.0833	\$0.0903
	Medium.....	.0833	.0889
PENNSYLVANIA.			
Allegheny.....	Medium.....	.1125	.1146
	Medium.....	.1188	.1375
Philadelphia.....	Best.....	.1200	.1183
	Best.....	.1000	.1000
	Medium.....	.0900	.0800
Pittsburg.....	Apples, evaporated.....	.1000	.1075
	Best.....	.1000	.1208
Scranton.....	Medium.....	.1200	.1200
	Medium.....	.1250	.1250
Wilkes-Barre.....	Medium.....	.1000	.1000
	Medium.....	.1000	.1133
RHODE ISLAND.			
Providence.....	Best.....	.1292	.1250
	Best.....	.1183	.1483
	Good.....	.1200	.1333
SOUTH CAROLINA.			
Charleston.....	Medium.....	.1000	.0917
	Medium.....	.1000	.1000
SOUTH DAKOTA.			
Sioux Falls.....	Best.....	.1000	.1104
	Medium.....	.0903	.1000
TENNESSEE.			
Memphis.....	Medium.....	.1167	.1100
	Medium.....	.1000	.1104
Nashville.....	Good.....	.0833	.0833
	Medium.....	.1000	.1000
TEXAS.			
Dallas.....	Extra.....	.1250	.1167
	Medium.....	.1250	.1250
San Antonio.....	Good.....	.1000	.1000
	Medium.....	.1000	.1083
UTAH.			
Salt Lake City.....	Medium.....	.1250	.1250
	Medium.....	.1250	.1250
VIRGINIA.			
Norfolk.....	Good.....	.1000	.1000
	Good.....	.0800	.0800
Richmond.....	Good.....	.1000	.1000
	Good.....	.1000	.1000
WASHINGTON.			
Seattle.....	Medium.....	.1000	.1042
	Medium.....	.1250	.1250
Tacoma.....	Medium.....	.1250	.1250
	Medium.....	.1000	.1000
WEST VIRGINIA.			
Wheeling.....	Medium.....	.1000	.1000
	Medium.....	.1042	.1292
WISCONSIN.			
Milwaukee.....	Best.....	.1000	.1000
	Best.....	.1000	.1250

BEANS, DRY, PER QUART.

ALABAMA.			
Birmingham.....	Navy.....	\$0.1250	\$0.1250
	Navy.....	.1250	.1250
Montgomery.....	Navy.....	.1000	.1000
	Navy.....	.1000	.1000
ARKANSAS.			
Little Rock.....	Navy, sold by the pound.....	.1172	.1113
	Navy, sold by the pound.....	.1172	.1172

TABLE L.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BEANS, DRY, PER QUART—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
CALIFORNIA.			
Los Angeles.....	Navy, sold by the pound.....	\$0. 0750	\$0. 0750
	Pink, sold by the pound.....	. 0750	. 0750
San Francisco.....	Navy, sold by the pound.....	. 0750	. 0750
	Pea, sold 4 pounds for 25 cents.....	. 1172	. 1172
	Pea, sold by the pound.....	. 0938	. 0938
	Pink, sold 6 pounds for 25 cents, Jan., 1904, to Oct., 1905; 7 pounds for 25 cents, Nov. and Dec., 1905.....	. 0781	. 0760
COLORADO.			
Denver.....	Navy, sold by the pound.....	. 0938	. 0938
	Navy, sold by the pound.....	. 0938	. 0938
CONNECTICUT.			
New Haven.....	Pea.....	. 1000	. 1000
	Pea.....	. 1000	. 1000
DELAWARE.			
Wilmington.....	Navy.....	. 1000	. 1000
	Pea, small.....	. 0800	. 0800
DISTRICT OF COLUMBIA.			
Washington.....	Navy.....	. 1000	. 1000
	Pea.....	. 1000	. 1000
	Pea.....	. 1000	. 1000
FLORIDA.			
Jacksonville.....	Navy.....	. 1000	. 1000
	Navy.....	. 1000	. 1000
	Navy.....	. 1000	. 1000
GEORGIA.			
Atlanta.....	Boston.....	. 1000	. 1000
	Navy.....	. 0833	. 0833
	Navy.....	. 1000	. 1000
ILLINOIS.			
Chicago.....	Navy, hand picked.....	. 0800	. 0800
	Navy, hand picked.....	. 1000	. 1000
	Navy, hand picked.....	. 1000	. 1000
Peoria.....	Navy.....	. 0938	. 0938
	Navy, sold by the pound.....	. 0938	. 0938
	Navy, sold by the pound.....	. 0938	. 0813
INDIANA.			
Indianapolis.....	Navy.....	. 0833	. 0833
	Navy.....	. 1000	. 1000
Terre Haute.....	Navy, sold by the pound.....	. 0938	. 0938
	Navy, sold in 7-pound lots.....	. 0670	. 0670
IOWA.			
Des Moines.....	Navy, sold by the pound.....	. 0938	. 0938
	Navy, sold by the pound.....	. 0750	. 0750
Dubuque.....	Navy, sold by the pound.....	. 0938	. 0938
	Navy, sold by the pound.....	. 0938	. 0938
KANSAS.			
Topeka.....	Navy, sold by the pound.....	. 0938	. 0938
	Navy, sold by the pound.....	. 0938	. 0938
KENTUCKY.			
Louisville.....	Navy, sold by the pound.....	. 0711	. 0707
	Navy, sold in 6-pound lots.....	. 0781	. 0781
LOUISIANA.			
New Orleans.....	Navy.....	. 0938	. 0938
	Navy, sold by the pound.....	. 0938	. 0938
	Navy, sold by the pound.....	. 0938	. 1000
MAINE.			
Portland.....	Pea.....	. 0917	. 0800
	Pea.....	. 0967	. 0800
MARYLAND.			
Baltimore.....	Navy.....	. 0867	. 0783
	Navy.....	. 1000	. 1000
	New York State, hand picked.....	. 1000	. 1000
MASSACHUSETTS.			
Boston.....	Navy or pea.....	. 0800	. 0800
	Navy or pea, New York State, sold by the one-half peck.....	. 0883	. 0817
	Pea.....	. 1067	. 1000

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BEANS, DRY, PER QUART—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
MASSACHUSETTS—concluded.			
Fall River.....	Pea.....	\$0.0917	\$0.1000
	Pea.....	.0800	.0800
Lynn.....	Navy or pea.....	.0800	.0767
	Navy or pea.....	.0938	.0913
Malden.....	Navy or pea.....	.0933	.0850
	Navy or pea, sold by the one-half peck..	.0765	.0758
Worcester.....	Pea.....	.0800	.0800
	Pea.....	.0700	.0700
MICHIGAN.			
Detroit.....	Navy.....	.0883	.0779
	Navy, sold in 6-pound lots.....	.0781	.0781
Grand Rapids.....	Navy.....	.0800	.0800
	Navy.....	.0800	.0800
MINNESOTA.			
Duluth.....	Navy, sold by the pound.....	.0938	.0938
	Navy, sold by the pound.....	.0938	.0938
Minneapolis.....	Navy.....	.1000	.1000
	Navy.....	.1000	.1000
	Navy.....	.0800	.0800
	Navy.....	.0792	.0842
St. Paul.....	Navy.....	.1000	.1000
	Pea.....	.1000	.1000
MISSOURI.			
Kansas City.....	Navy, sold by the pound.....	.0813	.0938
	Navy, sold by the pound.....	.0938	.0938
St. Louis.....	Hand picked, sold by the pound.....	.1031	.0938
	Navy.....	.1063	.0938
	Navy, sold by the pound.....	.0844	.0797
MONTANA.			
Butte.....	Navy, sold by the pound.....	.0938	.0938
	Navy, sold by the pound.....	.0938	.0938
NEBRASKA.			
Omaha.....	Navy.....	.0938	.0938
	Navy, sold by the pound.....	.0938	.0938
NEW HAMPSHIRE.			
Manchester.....	Navy.....	.0875	.0800
	Pea.....	.0883	.0800
NEW JERSEY.			
Jersey City.....	Navy.....	.1000	.1000
	Pea.....	.0800	.0825
Trenton.....	Navy.....	.1000	.1000
	Pea.....	.1000	.1000
	Pea.....	.1000	.1000
NEW YORK.			
Albany.....	Navy.....	.0800	.0800
	Navy.....	.1000	.1000
Brooklyn.....	Marrow.....	.1200	.1263
	Pea.....	.0900	.0900
Buffalo.....	Navy.....	.0817	.0900
	Navy.....	.0800	.0800
Flushing.....	Navy.....	.1000	.1000
	Navy.....	.1000	.1000
New York(a).....	Navy.....	.1000	.1000
	Navy.....	.1000	.1000
	Navy.....	.1000	.1000
	Pea, New York State.....	.1000	.1000
	White, medium.....	.1200	.1200
Rochester.....	Navy.....	.0783	.0758
	Navy.....	.0800	.0800
	Navy.....	.1000	.1000
Syracuse.....	Navy.....	.1000	.1000
	Navy.....	.0800	.0850
OHIO.			
Cincinnati.....	Dry.....	.1133	.1000
	Navy.....	.1000	.1000
	Navy.....	.1000	.1000
Cleveland.....	Navy.....	.1000	.1000
	Navy.....	.0800	.0800
	Navy.....	.1000	.1000
Toledo.....	Navy.....	.0800	.0800
	Navy.....	.0800	.0800

(a) Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BEANS, DRY, PER QUART—Concluded.

State and locality.	* Description.	Average price.	
		1904.	1905.
OREGON.			
Portland.....	Navy, sold by the pound.....	\$0.0938	\$0.0938
	Navy, sold by the pound.....	.0938	.0938
PENNSYLVANIA.			
Allegheny.....	Navy.....	.1000	.1000
	Navy.....	.1000	.1000
Philadelphia.....	Navy.....	.1000	.1000
	Navy.....	.0938	.0938
	Pea.....	.0938	.0938
Pittsburg.....	Navy.....	.1000	.1000
	Navy.....	.1000	.1000
Seranton.....	Navy.....	.1000	.1000
	Navy.....	.1000	.1200
Wilkes-Barre.....	Navy.....	.1000	.1000
	Navy.....	.1000	.1000
RHODE ISLAND.			
Providence.....	Dry.....	.1000	.1000
	Pea.....	.0917	.0967
SOUTH CAROLINA.			
Charleston.....	Navy.....	.1000	.1000
	Navy.....	.1000	.1000
SOUTH DAKOTA.			
Sioux Falls.....	Navy, sold by the pound.....	.0938	.0938
	Navy, sold by the pound.....	.0938	.0938
TENNESSEE.			
Memphis.....	Navy.....	.1000	.1000
	Navy, sold by the pound.....	.0938	.0938
Nashville.....	Navy.....	.1000	.1000
	Navy, sold in 6-pound lots.....	.0938	.0938
TEXAS.			
Dallas.....	Navy, sold by the pound.....	.1172	.1172
	Navy, sold by the pound.....	.1172	.1156
San Antonio.....	Dry, sold by the pound.....	.0938	.0938
	Navy, sold by the pound.....	.0938	.0938
UTAH.			
Salt Lake City.....	Navy.....	.0938	.0938
	Navy.....	.0938	.0938
VIRGINIA.			
Norfolk.....	Navy.....	.0800	.0800
	Navy.....	.0800	.0800
Richmond.....	Navy.....	.1000	.1000
	Navy.....	.0800	.0800
WASHINGTON.			
Seattle.....	Navy.....	.1000	.1000
	Navy.....	.1000	.1000
Tacoma.....	Navy, sold by the pound.....	.0938	.0938
	Navy, sold by the pound.....	.0938	.0938
WEST VIRGINIA.			
Wheeling.....	Navy.....	.0800	.0800
	Navy.....	.0800	.0800
WISCONSIN.			
Milwaukee.....	Navy, sold by the pound.....	.0938	.0938
	Navy, sold by the pound.....	.0938	.0938

BEEF, FRESH, ROASTS, PER POUND.

ALABAMA.			
Birmingham.....	Chuck.....	\$0.1000	\$0.1000
	Chuck.....	.1000	.1017
	Chuck.....	.1250	.1250
	Chuck, medium.....	.1067	.1083
	Rib.....	.1750	.1800
	Rib.....	.1750	.1733
Montgomery.....	Rib.....	.1517	.1567
	Chuck, good.....	.0917	.0917
	Chuck, medium.....	.0800	.0800
	Chuck, medium.....	.0950	.0950
	Rib.....	.1146	.1146
	Rib.....	.1271	.1271
	Rib.....	.1280	.1167

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BEEF, FRESH, ROASTS, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
ARKANSAS.			
Little Rock.....	Chuck.....	\$0.1000	\$0.1000
	Chuck.....	.1000	.1000
	Chuck, home dressed.....	.0800	.0800
	Rib.....	.1500	.1500
	Rib.....	.1250	.1250
	Rib, home dressed.....	.1000	.1000
CALIFORNIA.			
Los Angeles.....	Chuck.....	.1000	.0867
	Chuck.....	.0800	.0817
	Chuck.....	.1000	.1000
	Rib.....	.1700	.1700
	Rib.....	.1500	.1500
	Rib, prime.....	.1800	.1800
San Francisco.....	Chuck.....	.1600	.1000
	Chuck.....	.1000	.1000
	Chuck.....	.1250	.1250
	Chuck.....	.1000	.1000
	Rib.....	.1500	.1500
	Rib.....	.1500	.1500
San Francisco.....	Rib, prime.....	.1800	.1800
	Rib, prime.....	.2000	.2000
	COLORADO.		
	Denver.....	Chuck.....	.0600	.0600
Chuck.....		.0675	.0700
Chuck.....		.0800	.0800
Rib.....		.1250	.1250
Rib.....		.2000	.2000
Rib, medium.....		.1250	.1250
CONNECTICUT.			
New Haven.....	Chuck.....	.1167	.1183
	Chuck.....	.1183	.1300
	Chuck.....	.1400	.1375
	Rib.....	.1983	.2083
	Rib, first cut.....	.1917	.1817
	Rib, first cut.....	.2500	.2500
DELAWARE.			
Wilmington.....	Chuck.....	.1258	.1233
	Chuck.....	.1083	.1117
	Rib, best cut.....	.1750	.1800
	Rib, best cut.....	.1500	.1500
DISTRICT OF COLUMBIA.			
Washington.....	Chuck.....	.1042	.1133
	Chuck, best.....	.1250	.1238
	Chuck, cheap grade.....	.1208	.1208
	Rib.....	.1475	.1500
	Rib, prime.....	.1833	.1700
	Rib, prime.....	.1900	.1825
FLORIDA.			
Jacksonville.....	Chuck.....	.1000	.1000
	Chuck.....	.0925	.0867
	Chuck, home dressed.....	.1000	.1000
	Chuck, western.....	.1000	.1000
	Rib.....	.2000	.1900
	Rib.....	.1800	.1783
	Rib, home dressed.....	.1250	.1250
	Rib, medium.....	.1250	.1250
Atlanta.....	Rib, western.....	.1500	.1500
	Chuck.....	.1000	.1000
	Chuck.....	.1000	.1000
	Chuck.....	.1250	.1250
	Rib.....	.1250	.1333
	Rib.....	.1867	.1867
GEORGIA.			
Atlanta.....	Rib.....	.1904	.1925
	Chuck.....	.0633	.0600
	Chuck.....	.1025	.1050
	Chuck.....	.0867	.0842
	Chuck.....	.1063	.1000
	Rib.....	.0917	.0867
ILLINOIS.			
Chicago.....	Rib.....	.0962	.1083
	Rib.....	.1350	.1267
	Rib.....	.1313	.1383
	Chuck.....	.0633	.0600
	Chuck.....	.1025	.1050
	Chuck.....	.0867	.0842

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BEEF, FRESH, ROASTS, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
ILLINOIS—concluded.			
Peoria.....	Chuck.....	\$0.0800	\$0.0800
	Chuck.....	.0817	.0750
	Chuck.....	.0800	.0800
	Chuck.....	.0604	.0542
	Rib.....	.1000	.1000
	Rib.....	.0900	.1000
	Rib.....	.0900	.0983
Rib.....	.1117	.1092	
INDIANA.			
Indianapolis.....	Chuck, best cut.....	.1250	.1250
	Chuck, best cut.....	.1083	.1050
	Chuck, best cut.....	.1000	.1000
	Rib.....	.1500	.1625
	Rib.....	.1567	.1617
Terre Haute.....	Rib.....	.1250	.1250
	Chuck, best cut.....	.1000	.1000
	Chuck, best cut.....	.1000	.1000
	Chuck, best cut.....	.1000	.1000
	Rib, prime.....	.1333	.1313
Short rib.....	Short rib.....	.1396	.1438
	Short rib, prime.....	.1500	.1500
	IOWA.		
Des Moines.....	Chuck.....	.0817	.0860
	Chuck.....	.1000	.1025
	Chuck.....	.0725	.0833
	Rib.....	.1525	.1550
	Rib.....	.1900	.1950
	Rib.....	.1146	.1167
Dubuque.....	Chuck.....	.0933	.1104
	Chuck.....	.1000	.1063
	Chuck.....	.0944	.1063
	Rib.....	.1500	.1500
	Rib.....	.1250	.1250
	Rib.....	.1313	.1313
KANSAS.			
Topeka.....	Chuck.....	.0889	.1000
	Chuck.....	.0958	.1000
	Chuck.....	.0917	.1000
	Rib.....	.1375	.1313
	Rib.....	.1417	.1417
	Rib.....	.1375	.1417
KENTUCKY.			
Louisville.....	Chuck.....	.0892	.0858
	Chuck.....	.0908	.0850
	Chuck.....	.0892	.0850
	Rib.....	.1200	.1233
	Rib.....	.1325	.1358
	Rib.....	.1313	.1333
	Rib.....	.1350	.1438
	Rib.....	.1313	.1313
LOUISIANA.			
New Orleans.....	Chuck.....	.1025	.1033
	Chuck.....	.0900	.0900
	Chuck.....	.0900	.0867
	Chuck.....	.0900	.0900
	Rib.....	.1500	.1500
	Rib.....	.1500	.1500
	Rib.....	.1800	.1667
	Rib.....	.1500	.1500
MAINE.			
Portland.....	Chuck.....	.0875	.0875
	Chuck.....	.0983	.0867
	Chuck.....	.1050	.1000
	Rib.....	.1200	.1200
	Rib.....	.1583	.1408
	Rib.....	.1617	.1425
MARYLAND.			
Baltimore.....	Chuck.....	.0942	.0917
	Chuck.....	.1325	.1333
	Chuck.....	.0900	.0900
	Chuck.....	.1000	.1000
	Rib.....	.1642	.1567
	Rib, back cut.....	.1067	.1067
	Rib, first cut.....	.1300	.1283
	Rib, prime, first cut.....	.1800	.1800

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BEEF, FRESH, ROASTS, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
MASSACHUSETTS.			
Boston.....	Chuck.....	\$0. 1104	\$0. 1067
	Chuck.....	. 1083	. 1133
	Chuck.....	. 1104	. 1138
	Chuck, medium.....	. 0933	. 0900
	Rib.....	. 1675	. 1708
	Rib.....	. 1583	. 1567
	Rib.....	. 1950	. 1917
	Rib.....	. 2108	. 1950
Fall River.....	Chuck.....	. 0875	. 0892
	Chuck.....	. 0925	. 0867
	Chuck, medium.....	. 0800	. 0750
	Rib.....	. 1850	. 1725
	Rib.....	. 1283	. 1300
	Rib.....	. 1300	. 1250
Lynn.....	Chuck.....	. 0842	. 0850
	Chuck.....	. 1250	. 1233
	Chuck.....	. 1129	. 1300
	Rib.....	. 1358	. 1283
	Rib.....	. 1783	. 1775
	Rib.....	. 1563	. 1617
Malden.....	Chuck.....	. 1175	. 1167
	Chuck.....	. 1100	. 1113
	Chuck, medium.....	. 1225	. 1217
	Rib.....	. 1700	. 1650
	Rib.....	. 1450	. 1313
	Rib, medium.....	. 1600	. 1600
Worcester.....	Chuck.....	. 0908	. 0992
	Chuck.....	. 0942	. 0908
	Chuck.....	. 0892	. 0808
	Rib.....	. 1800	. 1658
	Rib.....	. 1758	. 1692
	Rib.....	. 1650	. 1617
MICHIGAN.			
Detroit.....	Chuck.....	. 0800	. 0800
	Chuck.....	. 0896	. 0933
	Chuck.....	. 0900	. 0842
	Chuck.....	. 0900	. 0917
	Rib.....	. 1213	. 1133
	Rib.....	. 1263	. 1379
	Rib, light, No. 1.....	. 1125	. 1104
	Rib, medium.....	. 1133	. 1117
	Rib, prime, No. 3.....	. 1250	. 1250
	Chuck.....	. 0908	. 0908
Grand Rapids.....	Chuck.....	. 1042	. 1021
	Chuck.....	. 1000	. 1000
	Rib.....	. 1450	. 1400
	Rib.....	. 1300	. 1300
	Rib, first grade.....	. 1400	. 1400
MINNESOTA.			
Duluth.....	Chuck.....	. 0800	. 0800
	Chuck.....	. 1121	. 1083
	Chuck.....	. 1000	. 1188
	Rib.....	. 1000	. 1000
	Rib.....	. 1375	. 1354
	Rib.....	. 1500	. 1725
Minneapolis.....	Chuck.....	. 0883	. 0817
	Chuck.....	. 0800	. 0883
	Chuck.....	. 0883	. 0883
	Rib.....	. 1500	. 1600
	Rib.....	. 1333	. 1313
	Rib, choice, best cut.....	. 1438	. 1396
St. Paul.....	Chuck.....	. 0900	. 0900
	Chuck.....	. 1025	. 1117
	Chuck.....	. 0800	. 0800
	Rib.....	. 1333	. 1354
	Rib.....	. 1658	. 1692
	Rib.....	. 1000	. 1000
MISSOURI.			
Kansas City.....	Chuck.....	. 0931	. 1000
	Chuck.....	. 0900	. 0800
	Chuck.....	. 0875	. 0875
	Rib.....	. 1550	. 1583
	Rib.....	. 1146	. 1188
	Rib.....	. 1567	. 1500

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BEEF, FRESH, ROASTS, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
MISSOURI—concluded.			
St. Louis.....	Chuck.....	\$0. 0833	\$0. 0875
	Chuck.....	. 0867	. 0842
	Chuck.....	. 0825	. 0850
	Chuck, medium.....	. 0800	. 0867
	Rib.....	. 1583	. 1592
	Rib.....	. 1567	. 1575
	Rib, prime.....	. 1396	. 1388
MONTANA.			
Butte.....	Rib, prime.....	. 1413	. 1400
	Chuck.....	. 0800	. 0819
	Chuck.....	. 0708	. 0575
	Chuck.....	. 0717	. 0700
	Rib.....	. 1333	. 1250
NEBRASKA.			
Omaha.....	Rib.....	. 1333	. 0963
	Rib.....	. 1333	. 1333
	Chuck.....	. 0814	. 0800
	Chuck.....	. 0800	. 0800
	Chuck.....	. 0875	. 0850
NEW HAMPSHIRE.			
Manchester.....	Rib.....	. 1458	. 1313
	Rib.....	. 1125	. 1000
	Rib.....	. 1375	. 1313
	Chuck.....	. 1033	. 0967
	Chuck.....	. 1017	. 1017
	Chuck, choice.....	. 0900	. 0900
NEW JERSEY.			
Jersey City.....	Chuck, second grade.....	. 0600	. 0600
	Rib.....	. 1200	. 1000
	Rib.....	. 2000	. 2000
	Rib, prime, first cut.....	. 1400	. 1400
	Rib, prime, second cut.....	. 1217	. 1167
	Chuck.....	. 1067	. 1113
NEW YORK.			
Albany.....	Chuck.....	. 1017	. 1050
	Chuck, home dressed.....	. 1325	. 1317
	Rib.....	. 1525	. 1542
	Rib.....	. 1217	. 1271
	Rib, best cut, home dressed.....	. 1917	. 1867
	Chuck.....	. 1275	. 1275
Trenton.....	Chuck.....	. 1313	. 1250
	Chuck.....	. 1250	. 1200
	Rib.....	. 1700	. 1650
	Rib.....	. 1700	. 1650
	Rib, best cut.....	. 1700	. 1567
	NEW YORK.		
Albany.....	Chuck.....	. 1450	. 1450
	Chuck.....	. 1250	. 1250
	Chuck.....	. 1250	. 1275
	Rib.....	. 1825	. 1825
	Rib.....	. 1800	. 1800
	Rib.....	. 1800	. 1800
Brooklyn.....	Chuck.....	. 1225	. 1200
	Chuck.....	. 1200	. 1200
	Chuck.....	. 1000	. 1000
	Chuck.....	. 1283	. 1300
	Rib.....	. 1817	. 1800
	Rib.....	. 1508	. 1517
Buffalo.....	Rib, prime.....	. 2000	. 2000
	Chuck.....	. 1000	. 0967
	Chuck.....	. 0883	. 0900
	Chuck.....	. 1092	. 1025
	Chuck, best.....	. 1133	. 1133
	Chuck, best.....	. 0950	. 0900
Buffalo.....	Chuck, second grade.....	. 0867	. 0842
	Rib.....	. 1200	. 1183
	Rib.....	. 1533	. 1642
	Rib, first grade.....	. 1533	. 1517
	Rib, second grade.....	. 1317	. 1300
	Rib, second grade.....	. 1288	. 1196
Flushing.....	Chuck.....	. 1067	. 1000
	Chuck.....	. 1083	. 1000
	Chuck.....	. 1000	. 1000
	Rib.....	. 1900	. 1750
	Rib.....	. 1925	. 1900

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BEEF, FRESH, ROASTS, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904	1905.
NEW YORK—concluded.			
New York (a).....	Chuck.....	\$0.1000	\$0.0917
	Chuck.....	.1300	.1250
	Chuck.....	.1067	.1117
	Chuck.....	.1200	.1167
	Chuck, medium.....	.1000	.0900
	Rib.....	.1483	.1388
	Rib.....	.1733	.1800
	Rib.....	.2033	.2000
	Rib.....	.1425	.1442
	Rib, medium.....	.1450	.1353
	Rib, prime.....	.1883	.1767
Rochester.....	Chuck.....	.0800	.0800
	Chuck.....	.1000	.1025
	Chuck.....	.0933	.1000
	Rib.....	.1271	.1433
	Rib.....	.1279	.1417
	Rib, prime cut.....	.1400	.1338
Syracuse.....	Chuck.....	.1000	.1000
	Chuck.....	.1200	.1200
	Chuck, medium.....	.1200	.1200
	Rib.....	.1950	.1950
	Rib, medium.....	.1400	.1288
	Rib, prime, second cut.....	.1950	.1967
OHIO.			
Cincinnati.....	Chuck, best.....	.1250	.1250
	Chuck, medium.....	.0800	.0800
	Chuck, medium.....	.0842	.0883
	Chuck, medium.....	.0800	.0800
	Rib.....	.1375	.1375
	Rib, best.....	.1500	.1500
	Rib, medium.....	.1375	.1375
	Rib, medium.....	.1400	.1500
	Rib, medium.....	.1363	.1362
Cleveland.....	Chuck.....	.1167	.1167
	Chuck.....	.1142	.1142
	Chuck.....	.0825	.0800
	Chuck, prime.....	.1183	.1158
	Rib.....	.1250	.1250
	Rib, prime.....	.1600	.1600
	Rib, prime.....	.1542	.1454
	Rib, prime.....	.1475	.1438
Toledo.....	Chuck.....	.1200	.1200
	Chuck.....	.0867	.0850
	Chuck.....	.1067	.1067
	Rib.....	.1100	.1100
	Rib.....	.1800	.1800
	Rib.....	.1250	.1250
OREGON.			
Portland.....	Chuck.....	.0900	.0900
	Chuck.....	.0900	.0900
	Chuck.....	.0900	.0962
	Rib.....	.1500	.1500
	Rib.....	.1500	.1375
	Rib.....	.1250	.1250
PENNSYLVANIA.			
Allegheny.....	Chuck.....	.1200	.1200
	Chuck.....	.1250	.1250
	Chuck.....	.1200	.1200
	Rib.....	.1533	.1550
	Rib.....	.1458	.1550
	Rib.....	.1558	.1533
Philadelphia.....	Chuck.....	.1150	.1000
	Chuck.....	.1117	.1117
	Chuck, best.....	.1200	.1200
	Chuck, best.....	.1300	.1200
	Chuck, first cut.....	.1200	.1200
	Rib.....	.1717	.1700
	Rib.....	.1350	.1400
	Rib.....	.2167	.2000
	Rib.....	.1783	.1883
	Rib, choice.....	.1983	.1800
Pittsburg.....	Chuck.....	.1250	.1250
	Chuck.....	.1250	.1250
	Chuck.....	.1250	.1250

a Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BEEF, FRESH, ROASTS, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
PENNSYLVANIA—concluded.			
Pittsburg	Rib.....	\$0.1700	\$0.1767
	Rib.....	.1558	.1567
	Rib, medium.....	.1800	.1800
Scranton.....	Chuck.....	.1250	.1146
	Chuck.....	.1250	.1250
	Chuck.....	.1250	.1250
Wilkes-Barre.....	Rib.....	.1500	.1400
	Rib.....	.2000	.2000
	Rib.....	.1600	.1600
Wilkes-Barre.....	Chuck.....	.1104	.1000
	Chuck.....	.1146	.1021
	Chuck, first cut.....	.1000	.1000
	Rib.....	.1767	.1600
	Rib.....	.1483	.1400
	Rib.....	.1517	.1417
RHODE ISLAND.			
Providence.....	Chuck.....	.1442	.1283
	Chuck, medium.....	.0800	.0800
	Rib.....	.2167	.2150
	Rib.....	.1817	.1800
SOUTH CAROLINA.			
Charleston.....	Chuck, home dressed.....	.1000	.1000
	Chuck, western.....	.0800	.0800
	Chuck, western.....	.1000	.1000
	Rib, home dressed.....	.1250	.1250
	Rib, western.....	.1500	.1525
	Rib, western.....	.1250	.1250
SOUTH DAKOTA.			
Sioux Falls.....	Chuck.....	.0778	.0625
	Chuck.....	.0833	.0833
	Chuck.....	.0925	.0833
	Rib.....	.1250	.1063
	Rib.....	.1250	.1250
	Rib.....	.1333	.1250
TENNESSEE.			
Memphis.....	Chuck.....	.1000	.1000
	Chuck, best.....	.1000	.1000
	Chuck, good cut.....	.1000	.1000
	Rib.....	.1250	.1288
	Rib, good cut.....	.1363	.1450
	Rib, medium cut.....	.1250	.1250
Nashville.....	Chuck.....	.0800	.0800
	Chuck.....	.0733	.0733
	Chuck, best cut.....	.0975	.1104
	Rib.....	.1250	.1250
	Rib.....	.1250	.1313
	Rib, best cut.....	.1208	.1375
TEXAS.			
Dallas.....	Chuck.....	.1000	.0917
	Chuck.....	.1000	.1000
	Chuck.....	.1000	.1000
	Rib.....	.1250	.1146
	Rib.....	.1063	.1083
	Rib, prime.....	.1250	.1104
San Antonio.....	Chuck.....	.0500	.0500
	Chuck.....	.0600	.0600
	Chuck.....	.0700	.0700
	Rib.....	.1250	.1125
	Rib.....	.1250	.1250
	Rib.....	.1000	.1083
UTAH.			
Salt Lake City.....	Chuck.....	.1000	.1000
	Chuck.....	.1000	.1000
	Chuck.....	.1000	.1000
	Rib.....	.1500	.1500
	Rib, medium.....	.1250	.1250
	Rib, prime.....	.1750	.1750
VIRGINIA.			
Norfolk.....	Chuck.....	.1033	.1000
	Chuck.....	.1063	.1000
	Chuck.....	.1063	.1021
	Rib.....	.1313	.1250
	Rib.....	.1313	.1271
	Rib, prime.....	.1508	.1508

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BEEF, FRESH, ROASTS, PER POUND—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
VIRGINIA—concluded.			
Richmond.....	Chuck.....	\$0.1000	\$0.1000
	Chuck.....	.1000	.1000
	Chuck.....	.1000	.1000
	Rib, medium.....	.1313	.1250
	Rib, medium.....	.1250	.1250
WASHINGTON.			
Seattle.....	Chuck.....	.0750	.0725
	Chuck.....	.1000	.1000
	Chuck.....	.0800	.0800
	Rib.....	.1500	.1500
	Rib.....	.1500	.1500
Tacoma.....	Rib, prime.....	.1375	.1375
	Chuck.....	.0883	.0883
	Chuck.....	.0917	.0917
	Chuck.....	.1125	.1125
	Rib.....	.1438	.1438
Tacoma.....	Rib.....	.1500	.1500
	Rib, prime.....	.1500	.1500
	WEST VIRGINIA.		
Wheeling.....	Chuck.....	.1250	.1250
	Chuck.....	.0950	.1104
	Chuck, best.....	.1167	.1250
	Rib.....	.1500	.1500
	Rib.....	.1125	.1292
WISCONSIN.			
Milwaukee.....	Rib.....	.1375	.1500
	Chuck.....	.1000	.0900
	Chuck.....	.0933	.0900
	Chuck.....	.1396	.1375
	Rib.....	.1400	.1313
Milwaukee.....	Rib.....	.1100	.1117
	Rib.....	.1800	.1800

BEEF, FRESH, STEAKS, PER POUND.

ALABAMA.			
Birmingham.....	Round.....	\$0.1500	\$0.1500
	Round.....	.1500	.1500
	Round.....	.1500	.1500
	Sirloin.....	.1750	.1863
	Sirloin.....	.1800	.1850
Montgomery.....	Sirloin.....	.1788	.1804
	Round.....	.1250	.1250
	Round.....	.1167	.1167
	Round.....	.1250	.1250
	Sirloin.....	.1500	.1500
ARKANSAS.			
Little Rock.....	Sirloin.....	.1417	.1417
	Round.....	.1250	.1250
	Round, best cut.....	.1500	.1500
	Round, home dressed.....	.1000	.1000
	Sirloin.....	.1750	.1750
CALIFORNIA.			
Los Angeles.....	Sirloin.....	.1750	.1750
	Sirloin, home dressed.....	.1000	.1000
	Round.....	.1250	.1250
	Round.....	.1250	.1250
	Round, bottom.....	.1250	.1250
San Francisco.....	Round, top.....	.1500	.1500
	Sirloin.....	.1500	.1517
	Sirloin.....	.1600	.1617
	Sirloin, medium.....	.1500	.1500
	Round.....	.1250	.1250
	Round.....	.1250	.1188
	Round.....	.1250	.1250
	Round.....	.1250	.1250
	Sirloin.....	.1500	.1306
	Sirloin.....	.1500	.1306
	Sirloin.....	.1500	.1500
	Sirloin.....	.1500	.1500

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BEEF, FRESH, STEAKS, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
COLORADO.			
Denver.....	Round.....	\$0.1000	\$0.1000
	Round.....	.1000	.1000
	Round.....	.1500	.1500
	Sirloin.....	.1500	.1500
	Sirloin.....	.1250	.1250
	Sirloin.....	.2000	.2000
CONNECTICUT.			
New Haven.....	Round.....	.1900	.1775
	Round.....	.2050	.2167
	Round.....	.2200	.2017
	Sirloin.....	.2200	.2217
	Sirloin.....	.2417	.2325
	Sirloin.....	.2417	.2400
DELAWARE.			
Wilmington.....	Round.....	.1850	.1900
	Round.....	.1700	.1600
	Round, best cut.....	.1675	.1650
	Sirloin.....	.2117	.2100
	Sirloin, best cut.....	.2500	.2500
DISTRICT OF COLUMBIA.			
Washington.....	Round.....	.1517	.1525
	Round.....	.1500	.1438
	Round.....	.1396	.1517
	Sirloin.....	.1800	.1850
	Sirloin.....	.1833	.1883
	Sirloin.....	.1800	.1833
FLORIDA.			
Jacksonville.....	Round.....	.1500	.1400
	Round.....	.1354	.1350
	Round.....	.1500	.1500
	Round, medium.....	.1250	.1250
	Sirloin.....	.2000	.1900
	Sirloin.....	.1892	.1950
	Sirloin, home dressed.....	.1500	.1500
	Sirloin, medium.....	.1500	.1500
	Sirloin, western.....	.1800	.1800
GEORGIA.			
Atlanta.....	Round.....	.1250	.1342
	Round.....	.1500	.1500
	Round.....	.1250	.1250
	Sirloin.....	.1500	.1500
	Sirloin.....	.1604	.1667
	Sirloin.....	.2042	.2000
ILLINOIS.			
Chicago.....	Round.....	.1000	.0950
	Round.....	.1100	.1100
	Round.....	.1050	.1083
	Round.....	.1313	.1146
	Round.....	.1138	.1125
	Sirloin.....	.1500	.1400
	Sirloin.....	.1092	.1050
	Sirloin.....	.1392	.1313
	Sirloin.....	.1392	.1417
	Sirloin.....	.1517	.1508
	Sirloin.....	.1367	.1325
	Round.....	.1000	.1050
	Round.....	.1333	.1250
	Round.....	.1133	.1267
Peoria.....	Round.....	.1200	.1217
	Round.....	.1250	.1250
	Sirloin.....	.1250	.1250
	Sirloin.....	.1500	.1500
	Sirloin.....	.1421	.1458
	Sirloin.....	.1575	.1583
INDIANA.			
Indianapolis.....	Round.....	.1500	.1500
	Round.....	.1383	.1442
	Round.....	.1250	.1250
	Sirloin.....	.1800	.1800
	Sirloin.....	.1583	.1592
	Sirloin.....	.1500	.1500

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BEEF, FRESH, STEAKS, PER POUND—Continued.

State and locality.	Description.	Average price.		
		1904.	1905.	
INDIANA—concluded.				
Terre Haute.....	Round.....	\$0.1250	\$0.1250	
	Round.....	.1250	.1250	
	Round, medium.....	.1250	.1250	
	Sirloin.....	.1500	.1500	
	Sirloin.....	.1500	.1500	
IOWA.	Sirloin, medium.....	.1500	.1500	
	Des Moines.....	Round.....	.1254	.1208
		Round.....	.1292	.1163
		Round.....	.1125	.1042
		Sirloin.....	.1550	.1667
Sirloin, medium.....		.1500	.1600	
Dubuque.....	Sirloin, second cut.....	.1167	.1208	
	Round.....	.1396	.1625	
	Round.....	.1417	.1354	
	Round.....	.1188	.1250	
	Sirloin.....	.1708	.1792	
KANSAS.	Sirloin.....	.1667	.1708	
	Sirloin.....	.1396	.1500	
	Topeka.....	Round.....	.1225	.1250
		Round.....	.1275	.1250
		Round.....	.1188	.1250
Sirloin.....		.1500	.1500	
Sirloin.....		.1550	.1583	
KENTUCKY.	Sirloin.....	.1525	.1567	
	Louisville.....	Round.....	.1229	.1333
		Round.....	.1146	.1313
		Round.....	.1250	.1250
		Sirloin.....	.1500	.1500
Sirloin.....		.1458	.1417	
LOUISIANA.	Sirloin.....	.1500	.1500	
	New Orleans.....	Round.....	.1067	.1050
		Round.....	.1000	.1063
		Round.....	.1250	.1146
		Round.....	.1250	.1258
Sirloin.....		.1500	.1500	
MAINE.	Sirloin.....	.2000	.2000	
	Sirloin.....	.1800	.1717	
	Sirloin.....	.1700	.1771	
	Portland.....	Round.....	.1404	.1250
		Round.....	.1413	.1400
Round, lower cut.....		.1000	.1000	
Sirloin.....		.1300	.1300	
Sirloin.....		.2625	.2017	
MARYLAND.	Sirloin.....	.2667	.2850	
	Baltimore.....	Round.....	.1517	.1500
		Round.....	.1433	.1500
		Round.....	.1442	.1500
		Round.....	.1467	.1500
Sirloin.....		.1783	.1800	
MASSACHUSETTS.	Sirloin.....	.1767	.1592	
	Sirloin.....	.1567	.1642	
	Boston.....	Round.....	.2050	.2025
		Round.....	.2050	.1925
		Round, medium.....	.2042	.2008
Sirloin.....		.2425	.2308	
Sirloin.....		.2242	.2225	
Fall River.....	Sirloin.....	.2408	.2192	
	Sirloin.....	.2767	.2596	
	Sirloin, medium.....	.2450	.2433	
	Round.....	.1450	.1300	
	Round.....	.1483	.1275	
	Round, medium.....	.1267	.1225	
	Sirloin.....	.2200	.2083	
	Sirloin, medium.....	.2383	.2233	
	Sirloin, medium.....	.2367	.2350	

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BEEF, FRESH, STEAKS, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
MASSACHUSETTS—concluded.			
Lynn.....	Round.....	\$0. 1550	\$0. 1580
	Round.....	. 2158	. 2158
	Round.....	. 1625	. 1667
	Sirloin.....	. 2308	. 2350
	Sirloin.....	. 2092	. 2642
Malden.....	Sirloin.....	. 2775	. 2433
	Round.....	. 1917	. 1867
	Round.....	. 1917	. 2025
	Round.....	. 1508	. 1558
	Sirloin.....	. 2442	. 2533
Worcester.....	Sirloin.....	. 2425	. 2608
	Sirloin.....	. 2467	. 2308
	Round.....	. 1867	. 1917
	Round.....	. 1558	. 1550
	Round, best.....	. 1900	. 1867
	Sirloin.....	. 2767	. 2750
	Sirloin.....	. 2550	. 2533
	Sirloin, best cut.....	. 2750	. 2800
MICHIGAN.			
Detroit.....	Round.....	. 1000	. 1000
	Round.....	. 1250	. 1225
	Round.....	. 1100	. 1075
	Sirloin.....	. 1525	. 1425
	Sirloin.....	. 1425	. 1383
Grand Rapids.....	Sirloin, prime, No. 3.....	. 1250	. 1250
	Round.....	. 1146	. 1042
	Round.....	. 1250	. 1250
	Round, best.....	. 1308	. 1300
	Sirloin.....	. 1450	. 1408
	Sirloin.....	. 1467	. 1450
	Sirloin, middle cuts.....	. 1600	. 1600
MINNESOTA.			
Duluth.....	Round.....	. 1225	. 1288
	Round.....	. 1358	. 1354
	Round.....	. 1250	. 1425
	Sirloin.....	. 1433	. 1517
	Sirloin.....	. 1625	. 1542
Minneapolis.....	Sirloin.....	. 1700	. 1750
	Round.....	. 1250	. 1217
	Round.....	. 1250	. 1104
	Round.....	. 1242	. 1263
	Sirloin.....	. 1500	. 1500
St. Paul.....	Sirloin.....	. 1500	. 1600
	Sirloin.....	. 1513	. 1533
	Round.....	. 1313	. 1313
	Round.....	. 1413	. 1417
	Round.....	. 1250	. 1250
	Sirloin.....	. 1625	. 1600
	Sirloin.....	. 1858	. 1917
	Sirloin.....	. 1500	. 1500
MISSOURI.			
Kansas City.....	Round.....	. 1275	. 1250
	Round.....	. 1104	. 1146
	Round.....	. 1146	. 1146
	Sirloin.....	. 1525	. 1583
	Sirloin.....	. 1396	. 1438
St. Louis.....	Sirloin.....	. 1550	. 1617
	Round.....	. 1083	. 1133
	Round.....	. 1129	. 1075
	Round.....	. 1113	. 1100
	Round.....	. 1163	. 1158
	Sirloin.....	. 1600	. 1646
	Sirloin.....	. 1558	. 1533
	Sirloin.....	. 1550	. 1600
	Sirloin.....	. 1633	. 1642
MONTANA.			
Butte.....	Round.....	. 1083	. 1000
	Round.....	. 1007	. 0833
	Round.....	. 1007	. 1063
	Sirloin.....	. 1500	. 1500
	Sirloin.....	. 1313	. 1083
	Sirloin.....	. 1333	. 1375

TABLE II.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BEEF, FRESH, STEAKS, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
NEBRASKA.			
Omaha.....	Round.....	\$0.1000	\$0.1104
	Round.....	.1188	.1104
	Round.....	.1250	.1083
	Sirloin.....	.1500	.1500
	Sirloin.....	.1500	.1500
NEW HAMPSHIRE.			
Manchester.....	Round.....	.1500	.1500
	Round.....	.1833	.1833
	Round, cheap cut.....	.1250	.1250
	Round, prime, best cut.....	.2083	.2000
	Round, prime, second cut.....	.1633	.1525
	Sirloin.....	.2000	.2000
	Sirloin.....	.2833	.2833
NEW JERSEY.			
Jersey City.....	Round.....	.1417	.1425
	Round, home dressed.....	.1883	.1983
	Round, home dressed.....	.1883	.1867
	Sirloin.....	.1833	.1817
	Sirloin, best cut, home dressed.....	.2108	.2117
Trenton.....	Sirloin, best, home dressed.....	.2100	.2225
	Round.....	.1650	.1600
	Round, best cut.....	.1700	.1650
	Round, second cut.....	.1288	.1200
	Round, top, best cut.....	.1700	.1550
	Sirloin.....	.2117	.2125
	Sirloin.....	.1850	.1917
NEW YORK.			
Albany.....	Sirloin, best cut.....	.2125	.2000
	Round.....	.1667	.1667
	Round.....	.1600	.1600
	Round.....	.1650	.1650
	Sirloin.....	.2500	.2500
	Sirloin.....	.2000	.2000
Brooklyn.....	Sirloin.....	.2200	.2200
	Round.....	.1600	.1600
	Round, prime.....	.1817	.1800
	Round, prime.....	.1900	.1850
	Sirloin.....	.2017	.2000
	Sirloin.....	.1933	.1833
Buffalo.....	Sirloin.....	.2000	.2000
	Round.....	.1200	.1108
	Round.....	.1267	.1283
	Round.....	.1350	.1283
	Round, best.....	.1250	.1288
	Round, second grade.....	.1300	.1083
	Round, second grade.....	.1175	.1000
	Sirloin.....	.1492	.1375
	Sirloin.....	.1483	.1450
	Sirloin.....	.1483	.1475
	Sirloin, best.....	.1600	.1600
	Sirloin, second grade.....	.1550	.1400
Flushing.....	Sirloin, second grade.....	.1550	.1363
	Round.....	.1867	.1717
	Round.....	.1783	.1650
	Round.....	.1750	.1667
	Sirloin.....	.2067	.1917
	Sirloin.....	.1883	.1833
New York (a).....	Sirloin.....	.1967	.1933
	Round.....	.1600	.1600
	Round.....	.1883	.1800
	Round, good.....	.1500	.1567
	Round, New York State.....	.1917	.1850
	Round, prime.....	.1833	.1800
	Sirloin.....	.1800	.1633
	Sirloin.....	.2117	.2150
	Sirloin.....	.1967	.1950
	Sirloin.....	.1717	.1917
	Sirloin, good.....	.2083	.2000
	Sirloin, prime.....	.2117	.2000
	Sirloin, prime.....	.1800	.1800
Sirloin, second grade.....	.1600	.1600	

* Boroughs of Manhattan and Bronx only.

TABLE II.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BEEF, FRESH, STEAKS, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
NEW YORK—concluded.			
Rochester.....	Round.....	\$0. 1100	\$0. 1100
	Round.....	. 1150	. 1283
	Round.....	. 1183	. 1242
	Sirloin.....	. 1267	. 1300
	Sirloin.....	. 1300	. 1450
Syracuse.....	Sirloin.....	. 1275	. 1400
	Round.....	. 1267	. 1200
	Round, prime.....	. 1475	. 1483
	Round, second cut.....	. 1417	. 1400
	Sirloin.....	. 1483	. 1400
OHIO.	Sirloin.....	. 1850	. 1867
	Sirloin, prime, second cut.....	. 1775	. 1783
	Cincinnati.....	Round, best.....	. 1250	. 1250
Cleveland.....	Round, medium.....	. 1125	. 1125
	Round, medium.....	. 1063	. 1063
	Round, medium.....	. 1167	. 1167
	Sirloin, medium.....	. 1600	. 1600
	Sirloin, medium.....	. 1417	. 1417
	Sirloin, medium.....	. 1428	. 1417
	Round.....	. 1450	. 1483
	Round, best, lower cut.....	. 1550	. 1400
	Round, prime.....	. 1308	. 1321
	Round, prime, lower cut.....	. 1206	. 1200
Toledo.....	Round, upper cut.....	. 1250	. 1375
	Sirloin.....	. 1843	. 1700
	Sirloin, best.....	. 1750	. 1750
	Sirloin, first cut.....	. 1450	. 1533
	Sirloin, prime.....	. 1867	. 1733
	Round.....	. 1125	. 1125
	Round.....	. 1250	. 1250
OREGON.	Round.....	. 1008	. 1050
	Sirloin.....	. 1350	. 1350
	Sirloin.....	. 2000	. 2000
	Sirloin.....	. 1633	. 1633
	Portland.....	Round.....	. 1250	. 1250
PENNsylvania.	Round.....	. 1250	. 1250
	Round.....	. 1250	. 1250
	Sirloin.....	. 1500	. 1500
	Sirloin.....	. 1250	. 1250
	Sirloin.....	. 1500	. 1500
Allegheny.....	Round.....	. 1500	. 1517
	Round.....	. 1442	. 1475
	Round.....	. 1558	. 1533
	Sirloin.....	. 1867	. 1883
	Sirloin.....	. 1883	. 1883
	Sirloin.....	. 1900	. 1900
	Round.....	. 1667	. 1667
	Round, best.....	. 1750	. 1700
	Round, top.....	. 1783	. 1667
	Round, top.....	. 1700	. 1650
Philadelphia.....	Round, top, best.....	. 1900	. 1917
	Sirloin.....	. 2017	. 2150
	Sirloin.....	. 2117	. 2033
	Sirloin.....	. 2000	. 2067
	Sirloin.....	. 2400	. 2400
	Sirloin, best.....	. 2067	. 2500
	Round.....	. 1500	. 1500
	Round.....	. 1500	. 1500
	Round.....	. 1500	. 1500
	Sirloin.....	. 1867	. 1933
Pittsburg.....	Sirloin.....	. 2000	. 1933
	Sirloin.....	. 1917	. 1850
	Round.....	. 1325	. 1250
	Round.....	. 1650	. 1600
	Round.....	. 1500	. 1500
Scranton.....	Sirloin.....	. 1650	. 1600
	Sirloin.....	. 2200	. 2200
	Sirloin.....	. 2000	. 2000
	Sirloin.....	. 2000	. 2000
	Round.....	. 1450	. 1400
Wilkes-Barre.....	Round.....	. 1325	. 1288
	Round.....	. 1400	. 1400
	Sirloin.....	. 2000	. 2000
	Sirloin.....	. 1800	. 1800
	Sirloin.....	. 1800	. 1800

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BEEF, FRESH, STEAKS, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
RHODE ISLAND.			
Providence.....	Round.....	\$0. 1917	\$0. 1858
	Round.....	. 1817	. 1933
	Round.....	. 1950	. 1900
	Sirloin, trimmed.....	. 3283	. 3275
	Sirloin, trimmed.....	. 3308	. 3200
SOUTH CAROLINA.			
Charleston.....	Round.....	. 1083	. 1104
	Round, western.....	. 1250	. 1250
	Round, western.....	. 1250	. 1250
	Sirloin, first choice.....	. 1333	. 1333
	Sirloin, western.....	. 1500	. 1500
SOUTH DAKOTA.			
Sioux Falls.....	Sirloin, western.....	. 1250	. 1333
	Round.....	. 1000	. 1000
	Round.....	. 1000	. 1067
	Round.....	. 1000	. 1000
	Sirloin.....	. 1396	. 1354
TENNESSEE.			
Memphis.....	Sirloin.....	. 1250	. 1313
	Sirloin.....	. 1417	. 1375
	Round.....	. 1250	. 1279
	Round, medium.....	. 1492	. 1600
	Round, medium cut.....	. 1000	. 1100
Nashville.....	Sirloin.....	. 1783	. 1558
	Sirloin.....	. 1500	. 1742
	Sirloin, good.....	. 1800	. 1800
	Round.....	. 1250	. 1250
	Round.....	. 1250	. 1250
TEXAS.			
Dallas.....	Round.....	. 1146	. 1146
	Round.....	. 1250	. 1250
	Sirloin.....	. 1333	. 1333
	Sirloin, best cut.....	. 1354	. 1375
	Round.....	. 1354	. 1250
San Antonio.....	Round.....	. 1000	. 0931
	Round.....	. 1000	. 1000
	Sirloin.....	. 1500	. 1500
	Sirloin.....	. 1500	. 1396
	Sirloin.....	. 1250	. 1250
UTAH.			
Salt Lake City.....	Round.....	. 1000	. 1000
	Round.....	. 1000	. 1000
	Round.....	. 1000	. 1000
	Sirloin.....	. 1250	. 1250
	Sirloin.....	. 1250	. 1479
VIRGINIA.			
Norfolk.....	Sirloin.....	. 1250	. 1333
	Round.....	. 1042	. 1000
	Round.....	. 1313	. 1250
	Round.....	. 1038	. 1000
	Sirloin.....	. 1508	. 1500
Richmond.....	Sirloin.....	. 1592	. 1500
	Sirloin.....	. 1313	. 1275
	Round, choice.....	. 1250	. 1250
	Round, medium.....	. 1050	. 1083
	Round, prime.....	. 1250	. 1250
WASHINGTON.			
Seattle.....	Sirloin.....	. 1667	. 1667
	Sirloin, choice.....	. 1500	. 1500
	Sirloin, medium.....	. 1313	. 1250
	Round.....	. 1100	. 1125
	Round.....	. 1250	. 1250
	Round.....	. 1250	. 1250
	Sirloin.....	. 1550	. 1700
	Sirloin.....	. 1500	. 1500
	Sirloin.....	. 1542	. 1500
	Sirloin.....	. 1500	. 1500

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BEEF, FRESH, STEAKS, PER POUND—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
WASHINGTON—concluded.			
Tacoma.....	Round.....	\$0.1146	\$0.1250
	Round.....	.1250	.1146
	Round.....	.1250	.1250
	Sirloin.....	.1500	.1500
	Sirloin.....	.1500	.1500
	Sirloin.....	.1800	.1800
WEST VIRGINIA.			
Wheeling.....	Round.....	.1354	.1417
	Round.....	.1175	.1288
	Round.....	.1292	.1438
	Sirloin.....	.1717	.1800
	Sirloin.....	.1375	.1483
	Sirloin.....	.1617	.1750
WISCONSIN.			
Milwaukee.....	Round.....	.1200	.1167
	Round.....	.1108	.1150
	Round.....	.1475	.1458
	Sirloin.....	.1600	.1533
	Sirloin.....	.1333	.1375
	Sirloin.....	.1800	.1800

BEEF, SALT, PER POUND.

ALABAMA.			
Birmingham.....	Corned, medium.....	\$0.1250	\$0.1250
	Corned, plate, medium.....	.1250	.1250
Montgomery.....	Corned, brisket, good.....	.1000	.1000
ARKANSAS.			
Little Rock.....	Corned, brisket, medium.....	.1000	.1000
	Corned, medium.....	.1000	.1000
CALIFORNIA.			
Los Angeles.....	Corned, plate, medium.....	.0800	.0800
	Corned, plate, medium.....	.1000	.1000
San Francisco.....	Corned, brisket, first quality.....	.1000	.1000
	Corned, medium.....	.0600	.0600
	Corned, medium.....	.0800	.0700
	Corned, medium.....	.0700	.0700
COLORADO.			
Denver.....	Corned, brisket, medium.....	.0642	.0600
	Corned, brisket, medium.....	.0500	.0500
	Corned, rump, medium.....	.0800	.0800
CONNECTICUT.			
New Haven.....	Corned, neck or flank.....	.1000	.1000
	Corned, plate, medium.....	.0600	.0600
DELAWARE.			
Wilmington.....	Corned, chuck.....	.1000	.1000
	Corned, medium.....	.1279	.1288
DISTRICT OF COLUMBIA.			
Washington.....	Corned, plate, best.....	.0975	.0950
	Corned, plate, best.....	.0800	.0883
	Corned, plate, best cut.....	.0800	.0933
FLORIDA.			
Jacksonville.....	Corned, plate, medium.....	.0800	.0800
	Corned, plate or brisket, medium.....	.1000	.0900
GEORGIA.			
Atlanta.....	Corned, medium.....	.1250	.1250
	Corned, medium, sold in 2-lb. cans.....	.1250	.1250
ILLINOIS.			
Chicago.....	Corned, blade or brisket.....	.0633	.0575
	Corned, brisket.....	.0567	.0550
	Corned, rump.....	.0800	.0800
	Corned, rump, boneless.....	.0800	.0800
	Corned, medium.....	.0800	.0800
Peoria.....	Corned, medium.....	.1000	.1000
	Corned, shoulder or rump, medium.....	.0817	.0817

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BEEF, SALT, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
INDIANA.			
Indianapolis.....	Corned, medium.....	\$0.0600	\$0.0600
	Corned, rump, medium.....	.1000	.1000
Terre Haute.....	Corned, rump or shoulder.....	.1000	.1000
	Corned, rump or shoulder.....	.1000	.1000
	Corned, rump or shoulder.....	.1000	.1000
IOWA.			
Des Moines.....	Corned, medium.....	.0833	.0900
	Corned, medium.....	.0800	.0800
Dubuque.....	Corned, medium.....	.0875	.0906
	Corned, medium.....	.0800	.0867
KANSAS.			
Topeka.....	Corned, second cuts, medium.....	.0875	.0833
	Corned, second grade.....	.0833	.0833
KENTUCKY.			
Louisville.....	Corned, brisket.....	.0600	.0600
	Corned, brisket.....	.0600	.0600
LOUISIANA.			
New Orleans.....	Corned.....	.0800	.0800
	Corned, plate, first grade.....	.1000	.1000
	Corned, plate, medium.....	.1000	.1000
MAINE.			
Portland.....	Corned, brisket.....	.1225	.1183
	Corned, thin rib, medium.....	.0800	.0658
MARYLAND.			
Baltimore.....	Corned, medium.....	.1000	.0817
	Corned, plate.....	.0733	.0733
	Corned, plate.....	.0717	.0700
MASSACHUSETTS.			
Boston.....	Corned, brisket.....	.1346	.1271
	Corned, sticking piece.....	.0854	.0850
	Corned, sticking piece.....	.0792	.0725
Fall River.....	Corned, flank, medium.....	.0600	.0567
	Corned, thick rib.....	.1075	.0983
Lynn.....	Corned, thick ends.....	.1025	.1000
	Corned, thick ends.....	.1200	.1200
Malden.....	Corned, thick ends.....	.1200	.1200
	Corned, thick ends.....	.1000	.1000
Worcester.....	Corned, thick rib.....	.1313	.1275
	Corned, thin rib.....	.0967	.0958
MICHIGAN.			
Detroit.....	Corned, plate.....	.0600	.0600
	Corned, plate, bone out, rolled.....	.0800	.0800
	Corned, plate, bone out, rolled.....	.0800	.0800
Grand Rapids.....	Corned, rump.....	.1250	.1250
	Corned, rump.....	.1250	.1275
	Corned, rump.....	.1250	.1250
MINNESOTA.			
Duluth.....	Corned, shoulder, medium.....	.1042	.1042
	Corned, shoulder, medium.....	.1000	.1000
	Corned, shoulder, medium.....	.1000	.1000
Minneapolis.....	Corned.....	.1083	.0975
	Corned.....	.1000	.1000
St. Paul.....	Corned.....	.0800	.0800
	Corned, rump.....	.1008	.1163
MISSOURI.			
Kansas City.....	Corned, medium.....	.0778	.0833
	Corned, second cut, medium.....	.0750	.0833
St. Louis.....	Corned.....	.0758	.0758
	Corned, flank.....	.0650	.0700
	Corned, flank, medium.....	.0700	.0700
MONTANA.			
Butte.....	Corned, medium.....	.0700	.0700
	Corned, medium.....	.0700	.0700
NEBRASKA.			
Omaha.....	Corned, medium, second cuts.....	.0600	.0600
	Corned, medium, second cuts.....	.0600	.0600
NEW HAMPSHIRE.			
Manchester.....	Corned, thin rib, medium.....	.0800	.0800
	Corned, thin rib, second grade.....	.0800	.0800

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BEEF, SALT, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
NEW JERSEY.			
Jersey City.....	Corned, plate, medium.....	\$0.0900	\$0.0908
	Corned, plate or brisket, medium.....	.0800	.0800
Trenton.....	Corned, medium.....	.1000	.0917
	Corned, medium.....	.0850	.0775
NEW YORK.			
Albany.....	Corned, rump.....	.1400	.1400
	Corned, rump or shoulder, medium.....	.1200	.1200
Brooklyn.....	Corned, medium.....	.1200	.1200
	Corned, plate, medium.....	.0800	.0800
Buffalo.....	Corned, chuck, best cut.....	.0800	.0800
	Corned, rump.....	.0967	.0967
Flushing.....	Corned, plate.....	.0767	.0600
	Corned, rump.....	.1200	.1200
New York (a).....	Corned, brisket.....	.0800	.0800
	Corned, plate.....	.0800	.0800
	Corned, plate, New York State.....	.0717	.0650
Rochester.....	Corned, brisket.....	.0458	.0500
	Corned, rump.....	.0700	.0700
Syracuse.....	Corned, plate.....	.0600	.0600
	Corned rump.....	.0800	.0800
OHIO.			
Cincinnati.....	Corned, brisket, medium.....	.0800	.0800
	Corned, rump or shoulder, medium.....	.0842	.0900
Cleveland.....	Corned, brisket, boneless.....	.1000	.1000
	Corned, navel.....	.0658	.0617
	Corned, rump.....	.1250	.1250
Toledo.....	Corned, rib.....	.0471	.0471
	Corned, shoulder.....	.0783	.0767
OREGON.			
Portland.....	Corned, medium.....	.0700	.0617
	Corned, medium.....	.0800	.0725
PENNSYLVANIA.			
Allegheny.....	Corned.....	.1083	.1100
Philadelphia.....	Corned.....	.1000	.1000
	Corned, brisket, boneless.....	.0800	.0800
	Corned, plate or brisket.....	.0600	.0500
	Corned, rump, best.....	.1200	.1200
Pittsburg.....	Corned, medium.....	.1250	.1250
	Corned, medium.....	.1042	.1250
Scranton.....	Corned, chuck.....	.1000	.1000
	Corned, chuck or neck.....	.1000	.1000
Wilkes-Barre.....	Corned, plate.....	.1000	.1000
	Corned, rump.....	.1300	.1250
RHODE ISLAND.			
Providence.....	Corned, plate.....	.1000	.1150
	Corned, plate.....	.1200	.1200
SOUTH CAROLINA.			
Charleston.....	Corned, round.....	.1000	.1000
	Corned, round.....	.1000	.1000
SOUTH DAKOTA.			
Sioux Falls.....	Corned, medium.....	.0833	.0833
	Corned, second cuts, medium.....	.0800	.0800
TENNESSEE.			
Memphis.....	Corned, plate, good.....	.1000	.1000
	Corned, rump or brisket, good cut.....	.1000	.0933
	Corned, rump or brisket, medium.....	.1000	.1000
Nashville.....	Corned, brisket.....	.0800	.0800
	Corned, rump.....	.1000	.1000
TEXAS.			
Dallas.....	Corned, shoulder, medium.....	.1500	.1500
San Antonio.....	Corned, brisket, medium.....	.1000	.1000
	Corned, medium.....	.1000	.1000
UTAH.			
Salt Lake City.....	Corned, brisket, boneless, medium.....	.1250	.1250
	Corned, brisket, boneless, medium.....	.1000	.1000
	Corned, brisket, medium.....	.0800	.0800
VIRGINIA.			
Norfolk.....	Corned, navel.....	.0800	.0800
	Corned, navel.....	.0800	.0800
Richmond.....	Corned, brisket, medium.....	.0800	.0800
	Corned, brisket, medium.....	.0800	.0800

* Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BEEF, SALT, PER POUND—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
WASHINGTON.			
Seattle.....	Corned, medium.....	\$0.0800	\$0.0800
	Corned, plate or chuck, medium.....	.0500	.0550
	Corned, plate or rib, medium.....	.0600	.0600
Tacoma.....	Corned, brisket.....	.0742	.0700
	Corned, plate or brisket.....	.0800	.0800
WEST VIRGINIA.			
Wheeling.....	Corned, brisket.....	.1000	.1000
	Corned, plate.....	.1000	.1000
WISCONSIN.			
Milwaukee.....	Corned, medium.....	.1050	.1325
	Corned, second cuts, medium.....	.0600	.0600

BREAD, WHEAT.

State and locality.	Description.	Average price per loaf.		Average price per pound.	
		1904.	1905.	1904.	1905.
ALABAMA.					
Birmingham.....	12-ounce loaf.....	\$0.0500	\$0.0500	\$0.0667	\$0.0667
	12-ounce loaf.....	.0500	.0500	.0667	.0667
	12-ounce loaf.....	.0500	.0500	.0667	.0667
Montgomery.....	14-ounce loaf, 32 tickets sold for \$1..	.0313	.0313	.0357	.0357
	14-ounce loaf, 32 tickets sold for \$1..	.0313	.0313	.0357	.0357
	14-ounce loaf, 28 tickets sold for \$1..	.0357	.0357	.0408	.0408
ARKANSAS.					
Little Rock.....	1-pound loaf, 28 tickets sold for \$1..	.0357	.0357	.0357	.0357
	12-ounce loaf, 3 loaves sold for 10 cents.	.0333	.0333	.0444	.0444
	14-ounce loaf, 6 loaves sold for 25 cents.	.0417	.0417	.0476	.0476
	14-ounce loaf, Jan. to Sept., 1904, and April to Dec., 1905; 13-ounce loaf, Oct., 1904, to Mar., 1905; 3 loaves sold for 10 cents.	.0333	.0333	.0388	.0388
CALIFORNIA.					
Los Angeles.....	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
San Francisco.....	20-ounce loaf.....	.0500	.0500	.0400	.0400
	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf, Jan. to Sept., 1904; 15-ounce loaf, Oct. to Dec., 1904; 18-ounce loaf, 1905.	.0500	.0500	.0504	.0444
	1-pound loaf, Jan. to Sept., 1904; 15-ounce loaf, Oct., 1904, to Dec., 1905.	.0500	.0500	.0504	.0516
	18-ounce loaf.....	.0500	.0500	.0444	.0444
COLORADO.					
Denver.....	Best, 1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
CONNECTICUT					
New Haven.....	14-ounce loaf, Jan. to Mar., 1904; 14-ounce loaf, Apr., 1904, to Dec., 1905.	.0500	.0500	.0566	.0571
	15-ounce loaf, Jan. to April, 1904; 14-ounce loaf, May to July, 1904, and Sept. to Nov., 1905; 14-ounce loaf, Aug., 1904, to Aug., 1905, and Dec., 1905.	.0500	.0500	.0554	.0566
	26-ounce loaf, Jan. to Mar., 1904, and June 1904, to Dec., 1905; 25-ounce loaf, Apr. and May, 1904.	.1000	.1000	.0620	.0615
	14-ounce loaf, Jan. and Feb., 1904; 14-ounce loaf, Mar., 1904, to Dec., 1905.	.0500	.0500	.0568	.0571

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BREAD, WHEAT—Continued.

State and locality.	Description.	Average price per loaf.		Average price per pound.	
		1904.	1905.	1904.	1905.
DELAWARE.					
Wilmington.....	1-pound loaf.....	\$0.0500	\$0.0500	\$0.0500	\$0.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
DISTRICT OF COLUMBIA.					
Washington.....	1-pound loaf.....	.0508	.0500	.0508	.0500
	1-pound loaf.....	.0508	.0500	.0508	.0500
	1-pound loaf.....	.0508	.0500	.0508	.0500
FLORIDA.					
Jacksonville.....	14-ounce loaf, Jan. to Sept., 1904, and Jan. to Dec., 1905; 12-ounce loaf, Oct. to Dec., 1904; 25 tickets sold for \$1.	.0500	.0500	.0476	.0457
	14-ounce loaf, 25 tickets sold for \$1, except Dec., 1904, 5 cents straight.	.0500	.0500	.0467	.0457
	14-ounce loaf, 6 tickets sold for 25 cents.	.0500	.0500	.0476	.0476
	14-ounce loaf, 6 tickets sold for 25 cents.	.0500	.0500	.0476	.0476
GEORGIA.					
Atlanta.....	12-ounce loaf.....	.0500	.0500	.0667	.0667
	1-pound loaf, Jan. to Aug., 1904, and Jan. to June and Dec., 1905; 14-ounce loaf, Sept. to Dec., 1904, and July to Nov., 1905.	.0500	.0500	.0524	.0530
	1-pound loaf.....	.0500	.0500	.0500	.0500
ILLINOIS.					
Chicago.....	1-pound loaf, Jan. to Oct., 1904, and Apr. to Dec., 1905; 13-ounce loaf, Nov., 1904, to Mar., 1905.	.0500	.0500	.0519	.0529
	1-pound loaf, Jan. to Oct., 1904, and Apr. to Oct., 1905; 13-ounce loaf, Nov., 1904, to Mar., 1905, and Nov. and Dec., 1905.	.0500	.0500	.0519	.0548
	1-pound loaf, Jan. to Oct., 1904, and Apr. to Oct., 1905; 13-ounce loaf, Nov., 1904, to Mar., 1905; and Nov. and Dec., 1905.	.0500	.0500	.0519	.0548
	1-pound loaf, Jan. to Oct., 1904, and Apr. to Oct., 1905; 13-ounce loaf, Nov., 1904, to Mar., 1905, and Nov. and Dec., 1905.	.0500	.0500	.0519	.0548
Peoria.....	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
INDIANA.					
Indianapolis.....	17-ounce loaf.....	.0500	.0500	.0471	.0471
	17-ounce loaf.....	.0500	.0500	.0471	.0471
	17-ounce loaf.....	.0500	.0500	.0471	.0471
Terre Haute.....	17-ounce loaf.....	.0500	.0500	.0471	.0471
	17-ounce loaf.....	.0500	.0500	.0471	.0471
	19-ounce loaf.....	.0500	.0500	.0421	.0421
IOWA.					
Des Moines.....	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
Dubuque.....	13-ounce loaf.....	.0500	.0500	.0615	.0615
	13-ounce loaf.....	.0500	.0500	.0615	.0615
	13-ounce loaf.....	.0500	.0500	.0615	.0615
KANSAS.					
Topeka.....	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
KENTUCKY.					
Louisville.....	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
	22-ounce loaf, Jan. to May, 1904; 20-ounce loaf, June, 1904; 18-ounce loaf, July, 1904; 1-pound loaf, Aug., 1904, to Dec., 1905.	.0500	.0500	.0430	.0500

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BREAD, WHEAT—Continued.

State and locality.	Description.	Average price per loaf.		Average price per pound.	
		1904.	1905.	1904.	1905.
LOUISIANA.					
New Orleans.....	22-ounce loaf, Jan. to Mar., 1904; 20-ounce loaf, Apr., 1904, to Dec., 1905.	\$0.0500	\$0.0500	\$0.0390	\$0.0400
	24-ounce loaf, Jan. to Mar., 1904, and Nov. and Dec., 1905; 20-ounce loaf Apr., 1904, to Oct., 1905.	.0500	.0500	.0383	.0389
	24-ounce loaf, Jan. to Mar., 1904; 20-ounce loaf, Apr., 1904, to Dec., 1905.	.0500	.0500	.0383	.0400
	24-ounce loaf, Jan. to Mar., 1904; 20-ounce loaf, Apr., 1904, to Dec., 1905.	.0500	.0500	.0383	.0400
	24-ounce loaf, Jan. to Mar., 1904; 20-ounce loaf, Apr., 1904, to Dec., 1905.	.0500	.0500	.0383	.0400
MAINE.					
Portland.....	14-ounce loaf.....	.0500	.0500	.0571	.0571
	15-ounce loaf.....	.0500	.0500	.0533	.0533
	1-pound loaf.....	.0500	.0500	.0500	.0500
MARYLAND.					
Baltimore.....	14-ounce loaf, 1904; 1-pound loaf, 1905.	.0500	.0500	.0571	.0500
	1-pound loaf, Jan. to Aug., 1904, and 1905; 14-ounce loaf, Sept. to Dec., 1904.	.0500	.0500	.0524	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
MASSACHUSETTS.					
Boston.....	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf, Jan. to Aug., 1904; 14-ounce loaf, Sept., 1904, to Dec., 1905.	.0500	.0500	.0524	.0571
	1-pound loaf, Jan. to Mar., 1904; 14-ounce loaf, Apr., 1904, to Dec., 1905.	.0500	.0500	.0554	.0571
	1-pound loaf.....	.0500	.0500	.0500	.0500
Fall River.....	15-ounce loaf.....	.0500	.0500	.0533	.0533
	Homemade, 15-ounce loaf.....	.0500	.0500	.0533	.0533
	1-pound loaf.....	.0500	.0500	.0500	.0500
Lynn.....	1-pound loaf, Jan. to Mar., 1904; 14-ounce loaf, Apr., 1904, to Dec., 1905.	.0500	.0500	.0553	.0571
	1-pound loaf, Jan. to Mar., 1904; 14-ounce loaf, Apr., 1904, to Dec., 1905.	.0500	.0500	.0553	.0571
	21-ounce loaf.....	.0500	.0500	.0381	.0381
Malden.....	15-ounce loaf.....	.0500	.0500	.0533	.0533
	1-pound loaf, Jan. to Aug., 1904; 14-ounce loaf, Sept., 1904, to July, 1905; 15-ounce loaf, Aug. to Dec., 1905.	.0500	.0500	.0524	.0556
	1-pound loaf, Jan. to Aug., 1904; 14-ounce loaf, Sept., 1904, to July, 1905; 15-ounce loaf, Aug. to Dec., 1905.	.0500	.0500	.0524	.0556
Worcester.....	14-ounce loaf.....	.0500	.0500	.0552	.0552
	14-ounce loaf.....	.0500	.0500	.0552	.0552
	14-ounce loaf.....	.0500	.0500	.0552	.0552
MICHIGAN.					
Detroit.....	Butternut or Blue Ribbon, 1-pound loaf.	.0433	.0500	.0433	.0500
	1-pound loaf.....	.0525	.0533	.0525	.0533
	1-pound loaf.....	.0533	.0533	.0533	.0533
	1-pound loaf.....	.0525	.0583	.0525	.0583
Grand Rapids.....	14-ounce loaf.....	.0500	.0500	.0571	.0571
	14-ounce loaf.....	.0500	.0500	.0571	.0571
	14-ounce loaf.....	.0500	.0500	.0571	.0571
MINNESOTA.					
Duluth.....	14-ounce loaf.....	.0500	.0500	.0571	.0571
	1-pound loaf.....	.0533	.0550	.0533	.0550
	1-pound loaf.....	.0525	.0567	.0525	.0567
Minneapolis.....	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
St. Paul.....	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BREAD, WHEAT—Continued.

State and locality.	Description.	Average price per loaf.		Average price per pound.	
		1904.	1905.	1904.	1905.
MISSOURI.					
Kansas City.....	1-pound loaf.....	\$0.0500	\$0.0500	\$0.0500	\$0.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
St. Louis.....	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
MONTANA.					
Butte.....	12½-ounce loaf.....	.0625	.0583	.0800	.0747
	12½-ounce loaf.....	.0625	.0573	.0800	.0733
	14-ounce loaf, Jan. to Oct., 1904; 12-ounce loaf, Nov., 1904, to Dec., 1905.	.0625	.0531	.0734	.0708
NEBRASKA.					
Omaha.....	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
NEW HAMPSHIRE.					
Manchester.....	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
NEW JERSEY.					
Jersey City.....	1-pound loaf, Jan. to Aug., 1904, and Apr. to Dec., 1905; 14-ounce loaf, Sept., 1904, to Mar., 1905.	.0500	.0500	.0524	.0518
	1-pound loaf, Jan. to Aug., 1904, and Mar. to Dec., 1905; 14-ounce loaf, Sept., 1904, to Feb., 1905.	.0500	.0500	.0524	.0512
	1-pound loaf, Jan. to Aug., 1904, and Apr. to Dec., 1905; 14-ounce loaf Sept., 1904, to Mar., 1905.	.0500	.0500	.0524	.0518
Trenton.....	15-ounce loaf.....	.0500	.0500	.0533	.0533
	1-pound loaf, Jan. to Aug., 1904; 15-ounce loaf, Sept., 1904, to Dec., 1905.	.0500	.0500	.0511	.0533
	1-pound loaf, Jan. to Aug., 1904; 14-ounce loaf, Sept., 1904, to Dec., 1905.	.0500	.0500	.0524	.0571
NEW YORK.					
Albany.....	17-ounce loaf.....	.0500	.0500	.0471	.0471
	17-ounce loaf.....	.0500	.0500	.0471	.0471
	17-ounce loaf.....	.0500	.0500	.0471	.0471
Brooklyn.....	1-pound loaf, Jan. to June, 1904; 15-ounce loaf, July, 1904, to Dec., 1905.	.0500	.0500	.0517	.0533
	1-pound loaf, Jan. to July, 1904; 15-ounce loaf, Aug., 1904, to Dec., 1905.	.0500	.0500	.0514	.0533
	1-pound loaf, Jan. to July, 1904; 15-ounce loaf, Aug., 1904, to Dec., 1905.	.0500	.0500	.0514	.0533
Buffalo.....	14-ounce loaf, 1904; 15-ounce loaf, 1905.	.0500	.0500	.0571	.0533
	14-ounce loaf, Jan., 1904, to Oct., 1905.	.0500	.0500	.0571	.0565
	15-ounce loaf, Nov. and Dec., 1905.				
	1-pound loaf.....	.0500	.0500	.0500	.0500
Flushing.....	1-pound loaf, Jan. to Aug., 1904; 14-ounce loaf, Sept., 1904, to Dec., 1905.	.0500	.0500	.0524	.0571
	Vienna, 1-pound loaf, 1904; 14-ounce loaf, 1905.	.0500	.0500	.0500	.0571
	17-ounce loaf, Jan. to July, 1904; 1-pound loaf, Aug. and Sept., 1904; 15-ounce loaf, Oct. to Dec., 1904; 14-ounce loaf, 1905.	.0500	.0500	.0491	.0571
New York (a).....	17-ounce loaf, Jan. to July, 1904; 1-pound loaf, Aug. and Sept., 1904; 15-ounce loaf, Oct., 1904, to Dec., 1905.	.0500	.0500	.0491	.0533
	17-ounce loaf, Jan. to July, 1904; 1-pound loaf, Aug. and Sept., 1904; 15-ounce loaf, Oct., 1904, to Dec., 1905.	.0500	.0500	.0491	.0533
	17-ounce loaf, Jan. to July, 1904; 1-pound loaf, Aug. and Sept., 1904; 15-ounce loaf, Oct., 1904, to Dec., 1905.	.0500	.0500	.0491	.0533

* Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BREAD, WHEAT—Continued.

State and locality.	Description.	Average price per loaf.		Average price per pound.	
		1904.	1905.	1904.	1905.
NEW YORK—concluded.					
New York.....	17-ounce loaf, Jan. to July, 1904; 1-pound loaf, Aug. and Sept., 1904; 15-ounce loaf, Oct., 1904, to Dec., 1905.	\$0.0500	\$0.0500	\$0.0491	\$0.0533
Rochester.....	14-ounce loaf, 1904; 15-ounce loaf, 1905. 16½-ounce loaf, Jan. to May, 1904, and Nov. and Dec., 1905; 15-ounce loaf, June, 1904, to Oct., 1905.	.0500 .0500	.0500 .0500	.0571 .0513	.0533 .0525
	Vienna, 15-ounce loaf, Jan., 1904, to Feb., 1905; 1-pound loaf, Mar. to Dec., 1905.	.0500	.0500	.0533	.0506
Syracuse.....	1-pound loaf, 1904; 18-ounce loaf, 1905. 1-pound loaf..... 1-pound loaf.....	.0500 .0500 .0500	.0500 .0500 .0500	.0500 .0500 .0500	.0444 .0500 .0500
OHIO.					
Cincinnati.....	1-pound loaf..... 1-pound loaf..... 1-pound loaf..... 1-pound loaf.....	.0500 .0500 .0500 .0500	.0500 .0500 .0500 .0500	.0500 .0500 .0500 .0500	.0500 .0500 .0500 .0500
Cleveland.....	1-pound loaf, 1904; 14-ounce loaf, Jan. to Aug., 1905; 17-ounce loaf, Sept. to Dec., 1905.	.0500	.0500	.0500	.0538
	1-pound loaf, Jan. to June, 1904; 14- ounce loaf, July, 1904, to Aug., 1905; 17-ounce loaf, Sept. to Dec., 1905.	.0500	.0500	.0536	.0538
	1-pound loaf, Jan. to June, 1904; 14-ounce loaf, July, 1904, to Aug., 1905; 17-ounce loaf, Sept. to Dec., 1905.	.0500	.0500	.0536	.0538
	1-pound loaf, Jan. to May, 1904; 14- ounce loaf, June, 1904, to Oct., 1905; 17-ounce loaf, Nov. and Dec., 1905.	.0500	.0500	.0542	.0555
Toledo.....	1-pound loaf, Jan. to June, 1904, and 1905; 14-ounce loaf, July to Dec., 1904.	.0500	.0500	.0536	.0500
	1-pound loaf, Jan. to June, 1904, and 1905; 14-ounce loaf, July to Dec., 1904.	.0500	.0500	.0536	.0500
	1-pound loaf, Jan. to May, 1904, and Jan. to Dec., 1905; 14-ounce loaf, June to Dec., 1904.	.0500	.0500	.0541	.0500
OREGON.					
Portland.....	1-pound loaf..... 1-pound loaf..... 1-pound loaf.....	.0500 .0500 .0500	.0500 .0500 .0500	.0500 .0500 .0500	.0500 .0500 .0500
PENNSYLVANIA.					
Allegheny.....	1-pound loaf..... 1-pound loaf..... 28-ounce loaf..... 14-ounce loaf.....	.0500 .0500 .0900 .0500	.0500 .0500 .0900 .0500	.0500 .0500 .0514 .0571	.0500 .0500 .0514 .0571
Philadelphia.....	1-pound loaf..... Vienna, 1-pound loaf.....	.0500 .0500	.0500 .0500	.0500 .0500	.0500 .0500
Pittsburg.....	1-pound loaf..... 1-pound loaf..... 1-pound loaf..... 1-pound loaf.....	.0500 .0500 .0500 .0500	.0500 .0500 .0500 .0500	.0500 .0500 .0500 .0500	.0500 .0500 .0500 .0500
Scranton.....	1-pound loaf..... 1-pound loaf..... 1-pound loaf..... 1-pound loaf.....	.0500 .0500 .0500 .0500	.0500 .0500 .0500 .0500	.0500 .0500 .0500 .0500	.0500 .0500 .0500 .0500
Wilkes-Barre.....	14-ounce loaf..... 14-ounce loaf..... 14½-ounce loaf.....	.0500 .0500 .0500	.0500 .0500 .0500	.0571 .0571 .0532	.0571 .0571 .0532
RHODE ISLAND.					
Providence.....	14-ounce loaf, Jan. and Feb., 1904; 13½-ounce loaf, Mar. to Oct., 1904, and 1905; 13-ounce loaf, Nov. and Dec., 1904.	.0500	.0500	.0503	.0503
	14-ounce loaf, Jan. to Mar., 1904; 13½-ounce loaf, Apr., 1904, to Dec., 1905.	.0500	.0500	.0507	.0503
	14½-ounce loaf, Jan., 1904; 14-ounce loaf, Feb. to May, 1904; 13½-ounce loaf, June to Aug., 1904; 13-ounce loaf, Sept., 1904, to Dec., 1905.	.0500	.0500	.0509	.0515

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BREAD, WHEAT—Continued.

State and locality.	Description.	Average price per loaf.		Average price per pound.	
		1904.	1905.	1904.	1905.
SOUTH CAROLINA.					
Charleston.....	12-ounce loaf.....	\$0.0400	\$0.0400	\$0.0533	\$0.0533
	14-ounce loaf.....	.0375	.0300	.0428	.0343
	1-pound loaf.....	.0500	.0500	.0500	.0500
SOUTH DAKOTA.					
Sioux Falls.....	12-ounce loaf.....	.0500	.0500	.0615	.0615
	13-ounce loaf.....	.0500	.0500	.0615	.0615
	13-ounce loaf.....	.0500	.0500	.0615	.0615
TENNESSEE.					
Memphis.....	15-ounce loaf, Jan. to Aug., 1904; 14-ounce loaf, Sept. to Dec., 1904; 13-ounce loaf, 1905.	.0500	.0500	.0546	.0615
	15-ounce loaf, Jan. to May, 1904; 13-ounce loaf, June, 1904, to Dec., 1905.	.0500	.0500	.0581	.0615
	14-ounce loaf, Jan. to May, 1904; 13-ounce loaf, June, 1904, to Dec., 1905.	.0500	.0500	.0597	.0615
	1-pound loaf.....	.0500	.0500	.0500	.0500
Nashville.....	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf, Jan. to Sept., 1904 and 1905; 14-ounce loaf, Oct. to Dec., 1904 and 1905.	.0500	.0500	.0518	.0518
	1-pound loaf, Jan. to Sept., 1904 and 1905; 14-ounce loaf, Oct. to Dec., 1904 and 1905.	.0500	.0500	.0518	.0518
	1-pound loaf, Jan. to Sept., 1904 and 1905; 14-ounce loaf, Oct. to Dec., 1904 and 1905.	.0500	.0500	.0518	.0518
TEXAS.					
Dallas.....	14-ounce loaf, 1904; 13½-ounce loaf, 1905.	.0500	.0500	.0571	.0593
	15½-ounce loaf, Jan., Feb., 1904; 13½-ounce loaf, Mar., 1904, to Dec., 1905.	.0500	.0500	.0580	.0593
	1-pound loaf, Jan., Feb., 1904; 12-ounce loaf, Mar. to Dec., 1904; 13-ounce loaf, 1905.	.0500	.0500	.0639	.0615
	18-ounce loaf, Jan. to Mar., 1904; 17-ounce loaf, Apr., 1904, and Oct. to Dec., 1905; 15-ounce loaf, May, 1904, to Sept., 1905.	.0500	.0500	.0506	.0518
San Antonio.....	18-ounce loaf, Jan. to May, 1904, and July to Dec., 1905; 16-ounce loaf, July to Dec., 1904; 17-ounce loaf, Jan. to June, 1905.	.0500	.0500	.0477	.0457
	20-ounce loaf, Jan. and Feb., 1904; 19-ounce loaf, Mar., 1904; 18-ounce loaf, Apr., 1904; 15-ounce loaf, May, 1904, to May, 1905; 16-ounce loaf, June to Sept., 1905; 17-ounce loaf Oct. to Dec., 1905.	.0500	.0500	.0494	.0507
	14-ounce loaf.....	.0500	.0500	.0571	.0571
	14-ounce loaf.....	.0500	.0500	.0571	.0571
UTAH.					
Salt Lake City.....	15-ounce loaf.....	.0500	.0500	.0533	.0533
	15-ounce loaf.....	.0500	.0500	.0533	.0533
VIRGINIA.					
Norfolk.....	14-ounce loaf, Jan., 1904, to May, 1905; 15½-ounce loaf, June to Dec., 1905.	.0500	.0500	.0571	.0539
	14-ounce loaf, Jan., 1904, to May, 1905; 15½-ounce loaf, June to Dec., 1905.	.0500	.0500	.0571	.0539
	14-ounce loaf, Jan., 1904, to Aug., 1905; 1-pound loaf, Sept. to Dec., 1905.	.0500	.0500	.0571	.0547
	1-pound loaf.....	.0500	.0500	.0500	.0500
Richmond.....	1-pound loaf, Jan. to July, 1904, and Sept. to Dec., 1905; 14-ounce loaf, Aug., 1904, to Aug., 1905.	.0500	.0500	.0530	.0547
	1-pound loaf, Jan. to July, 1904, and Sept. to Dec., 1905; 14-ounce loaf, Aug., 1904, to Aug., 1905.	.0500	.0500	.0530	.0547
	1-pound loaf, Jan. to July, 1904, and Sept. to Dec., 1905; 14-ounce loaf, Aug., 1904, to Aug., 1905.	.0500	.0500	.0530	.0547
	1-pound loaf, Jan. to July, 1904, and Sept. to Dec., 1905; 14-ounce loaf, Aug., 1904, to Aug., 1905.	.0500	.0500	.0530	.0547
WASHINGTON.					
Seattle.....	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500
	1-pound loaf.....	.0500	.0500	.0500	.0500

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BUTTER, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
MICHIGAN—concluded.			
Detroit.....	Creamery, Elgin, best.....	\$0. 2767	\$0. 3100
	Creamery, White Rose, best.....	.2725	.2917
	Dairy, best.....	.2333	.2533
	Dairy, best.....	.2308	.2450
Grand Rapids.....	Dairy, best.....	.2467	.2458
	Dairy.....	.2192	.2425
	Dairy, best.....	.2308	.2217
MINNESOTA.			
Duluth.....	Creamery, best.....	.2642	.2858
	Creamery, medium.....	.2567	.2883
	Creamery, No. 1.....	.2692	.2933
Minneapolis.....	Creamery.....	.2542	.2750
	Creamery, fancy.....	.2433	.2550
	Creamery, first grade.....	.2800	.2892
St. Paul.....	Creamery, medium.....	.2300	.2642
	Creamery, best.....	.2650	.2942
	Creamery, good.....	.2750	.2908
MISSOURI.			
Kansas City.....	Creamery, medium.....	.2217	.2383
	Creamery, medium.....	.2233	.2242
	Creamery, medium.....	.2383	.2333
St. Louis.....	Creamery, best.....	.3200	.2775
	Creamery, medium.....	.2733	.2600
	Creamery, medium.....	.2675	.2850
MONTANA.			
Butte.....	Creamery, medium.....	.2583	.2733
	Creamery, medium.....	.2875	.3042
	Creamery, medium.....	.2896	.3233
NEBRASKA.			
Omaha.....	Creamery, best.....	.2558	.2500
	Creamery, best.....	.2583	.2500
	Creamery, best.....	.2517	.2392
NEW HAMPSHIRE.			
Manchester.....	Creamery.....	.2833	.2983
	Creamery, best.....	.2550	.2808
	Creamery, medium.....	.2892	.2908
NEW JERSEY.			
Jersey City.....	Dairy, best.....	.2250	.2508
	Creamery, Elgin, medium.....	.2792	.2825
	Creamery, Elgin, medium.....	.2642	.2725
Trenton.....	Creamery, medium.....	.2825	.2917
	Creamery, fancy.....	.3550	.3733
	Creamery, medium.....	.2717	.3042
NEW YORK.			
Albany.....	Creamery, medium.....	.2792	.2775
	Dairy, best.....	.2983	.3142
	Creamery.....	.2700	.2733
Brooklyn.....	Creamery, medium.....	.2375	.2667
	Creamery, medium.....	.2825	.2825
	Creamery, best.....	.2575	.2650
Buffalo.....	Creamery, best.....	.2642	.2717
	Creamery, Elgin, best.....	.2758	.2800
	Creamery, best.....	.2708	.2817
Flushing.....	Creamery, best.....	.2833	.2850
	Creamery, best.....	.2858	.3108
	Creamery, best.....	.2600	.2733
New York (a).....	Creamery, best.....	.2717	.2908
	Creamery, best.....	.2883	.3017
	Creamery, best.....	.2900	.3142
Country, fresh.....	Creamery, good.....	.2492	.2825
	Creamery, Elgin.....	.3042	.2917
	Creamery, Elgin.....	.2642	.2675
Rochester.....	Creamery, extra.....	.2800	.2608
	Creamery, extra.....	.2683	.2967
	Dairy, medium.....	.2625	.2817
Dairy, New York State, best.....	Dairy, New York State, best.....	.2750	.2808
	Creamery, Elgin.....	.2708	.2962
	Creamery, Elgin.....	.2883	.2975
Dairy, New York State, best.....	Creamery, New York State, best.....	.2692	.2775

* Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BUTTER, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
NEW YORK—concluded.			
Syracuse.....	Creamery, best.....	\$0.2867	\$0.3042
	Creamery, Elgin, best.....	.2763	.3042
	Creamery, fresh.....	.2842	.2825
	Creamery, medium.....	.2500	.2500
OHIO.			
Cincinnati.....	Creamery, best.....	.3050	.3033
	Creamery, best.....	.3150	.3208
	Creamery, best.....	.2942	.2958
	Dairy, good.....	.2250	.2325
Cleveland.....	Creamery.....	.2675	.2883
	Creamery, best.....	.2708	.2867
	Creamery, Elgin.....	.2900	.2575
	Creamery, Elgin.....	.2800	.3092
Toledo.....	Country, fresh.....	.2058	.2058
	Creamery, best.....	.2825	.2825
	Creamery, best.....	.2683	.2675
OREGON.			
Portland.....	Creamery, medium.....	.3146	.3146
	Creamery, medium.....	.3208	.3146
	Creamery, medium.....	.3271	.2983
PENNSYLVANIA.			
Allegheny.....	Creamery, best.....	.3142	.3242
	Creamery, best.....	.2900	.3058
	Creamery, best.....	.2983	.3208
Philadelphia.....	Creamery.....	.3175	.3375
	Creamery, best.....	.3375	.3450
	Creamery, best.....	.3100	.2992
	Creamery, best.....	.2992	.3325
	Creamery, Pennsylvania, best.....	.3142	.2975
	Dairy, tub.....	.2583	.2575
Pittsburg.....	Creamery, best.....	.3042	.3067
	Creamery, best.....	.3017	.3100
	Creamery, Elgin, best.....	.3058	.3075
Scranton.....	Creamery, Abington, best.....	.2725	.2867
	Creamery, best.....	.2575	.2825
	Creamery, Elgin, medium.....	.2408	.2792
Wilkes-Barre.....	Creamery, best.....	.2742	.2942
	Creamery, best.....	.2883	.2933
	Creamery, local, best.....	.3383	.3708
RHODE ISLAND.			
Providence.....	Creamery, best.....	.2842	.3017
	Creamery, first grade.....	.2792	.2783
	Creamery, first grade.....	.3217	.3217
SOUTH CAROLINA.			
Charleston.....	Creamery, best.....	.2892	.3008
	Creamery, medium.....	.2192	.2650
	Creamery, storage, medium.....	.2642	.2942
SOUTH DAKOTA.			
Roux Falls.....	Creamery, best.....	.2442	.2283
	Creamery, best.....	.2333	.2367
	Creamery, best.....	.2317	.2233
TENNESSEE.			
Memphis.....	Creamery.....	.3250	.2917
	Creamery, best.....	.3119	.3313
	Creamery, medium.....	.2917	.2875
Nashville.....	Creamery, best.....	.2708	.2771
	Dairy, best.....	.3000	.3000
	Dairy, Jersey, best.....	.2792	.2875
TEXAS.			
Dallas.....	Country, fresh.....	.1904	.1776
	Creamery, medium.....	.2958	.3250
	Creamery, medium.....	.2750	.2958
San Antonio.....	Creamery, medium.....	.2750	.2792
	Creamery, medium.....	.2500	.2500
	Creamery, medium.....	.3000	.3000
UTAH.			
Salt Lake City.....	Creamery, medium.....	.2750	.2958
	Creamery, medium.....	.2208	.2250
	Creamery, medium.....	.2667	.2750

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

BUTTER, PER POUND—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
VIRGINIA.			
Norfolk.....	Creamery.....	\$0.2783	\$0.3100
	Creamery, Fox River, good.....	.2800	.3067
	Creamery, good.....	.2775	.2900
Richmond.....	Creamery, Elgin.....	.2867	.3017
	Creamery, Elgin.....	.2900	.2813
	Creamery, Elgin, best.....	.3000	.3000
WASHINGTON.			
Seattle.....	Creamery, medium.....	.2688	.2938
	Creamery, medium.....	.2688	.2771
	Creamery, medium.....	.2708	.3354
Tacoma.....	Creamery, best.....	.3158	.3208
	Creamery, medium.....	.2688	.2833
	Creamery, medium.....	.3104	.3500
WEST VIRGINIA.			
Wheeling.....	Country, fresh.....	.2708	.2942
	Creamery, extra.....	.2758	.2842
	Creamery, extra.....	.2858	.3067
WISCONSIN.			
Milwaukee.....	Creamery, fancy.....	.2833	.3033
	Creamery, first grade.....	.2475	.2658
	Dairy, State, best.....	.2433	.2292

CHEESE, PER POUND.

ALABAMA.			
Birmingham.....	Full cream.....	\$0.2000	\$0.2000
	Full cream.....	.2000	.2000
Montgomery.....	Full cream.....	.1917	.1958
	Full cream.....	.2000	.2000
ARKANSAS.			
Little Rock.....	Full cream.....	.2000	.2000
	Full cream.....	.1875	.1875
CALIFORNIA.			
Los Angeles.....	Full cream.....	.2000	.2000
	Full cream, California.....	.2000	.2000
San Francisco.....	Full cream.....	.1500	.1750
	Full cream, California.....	.2000	.2000
	Full cream, California.....	.1500	.1500
	Full cream, California.....	.1767	.1800
	Full cream, eastern.....	.2000	.2000
COLORADO.			
Denver.....	Full cream, eastern.....	.2000	.2000
	Full cream, New York State.....	.1500	.1688
CONNECTICUT.			
New Haven.....	Full cream.....	.1833	.1833
	Full cream.....	.1800	.1767
DELAWARE.			
Wilmington.....	Full cream.....	.1800	.1850
	Full cream, New York State.....	.2000	.2000
DISTRICT OF COLUMBIA.			
Washington.....	Full cream.....	.2000	.2000
	Full cream.....	.2000	.2000
	Full cream.....	.2000	.2000
FLORIDA.			
Jacksonville.....	Full cream.....	.2000	.2000
	Full cream.....	.2292	.2000
	Full cream.....	.1600	.2000
GEORGIA.			
Atlanta.....	Full cream.....	.1542	.1646
	Full cream.....	.1792	.1808
	Full cream.....	.1500	.1533
ILLINOIS.			
Chicago.....	Full cream.....	.1333	.1617
	Full cream.....	.1692	.1800
	Full cream.....	.1267	.1550
	Full cream.....	.1667	.1800
	Full cream.....	.1600	.1800

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

CHEESE, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
ILLINOIS—concluded.			
Peoria.....	Full cream.....	\$0.2000	\$0.2000
	Full cream.....	.1525	.1858
	Full cream.....	.1900	.2000
INDIANA.			
Indianapolis.....	Full cream.....	.1692	.1867
	Full cream.....	.1600	.1608
	Full cream, New York State.....	.1883	.2000
Terre Haute.....	Full cream.....	.2000	.2000
	Full cream.....	.2000	.2000
IOWA.			
Des Moines.....	Full cream.....	.2000	.1933
	Full cream.....	.1625	.1688
Dubuque.....	Full cream.....	.1542	.1563
	Full cream, New York State.....	.1567	.1538
KANSAS.			
Topeka.....	Full cream.....	.1850	.2000
	Full cream.....	.2000	.2000
KENTUCKY.			
Louisville.....	Full cream.....	.2000	.2000
	Full cream, New York State.....	.2050	.2050
LOUISIANA.			
New Orleans.....	Full cream.....	.1542	.1688
	Full cream.....	.1792	.1813
	Full cream, New York State.....	.2000	.2000
MAINE.			
Portland.....	Cream, extra.....	.1708	.1608
	Full cream.....	.1733	.1750
MARYLAND.			
Baltimore.....	Full cream.....	.1950	.1950
	Full cream.....	.1575	.1617
	Full cream.....	.1800	.1650
MASSACHUSETTS.			
Boston.....	Full cream, American.....	.1458	.1533
	Full cream, American.....	.1533	.1533
	Full cream, Herkimer County, medium.....	.1525	.1558
Fall River.....	Full cream.....	.1342	.1417
	Full cream.....	.1483	.1517
Lynn.....	Full cream.....	.1517	.1633
	Full cream.....	.1733	.1650
Malden.....	Full cream.....	.1467	.1617
	Full cream, New York State.....	.1600	.1675
Worcester.....	Full cream.....	.1667	.1683
	Full cream.....	.1600	.1683
MICHIGAN.			
Detroit.....	Full cream.....	.1508	.1625
	Full cream, Michigan.....	.1800	.1683
Grand Rapids.....	Full cream.....	.1683	.1683
	Full cream.....	.1800	.1800
	Full cream, New York State.....	.1800	.1800
MINNESOTA.			
Duluth.....	Full cream.....	.1625	.1717
	Full cream.....	.1450	.1525
Minneapolis.....	Full cream.....	.1667	.1667
	Full cream.....	.1800	.1867
	Full cream.....	.1617	.1658
St. Paul.....	Cream.....	.1496	.1392
	Full cream.....	.1567	.1617
MISSOURI.			
Kansas City.....	Full cream.....	.1500	.1500
	Full cream.....	.1500	.1500
St. Louis.....	Full cream.....	.1550	.1800
	Full cream.....	.1567	.1800
	Full cream.....	.1867	.1820
	Full cream.....	.1950	.1933
MONTANA.			
Butte.....	Full cream.....	.2000	.2000
	Full cream, New York State.....	.2500	.2500
NEBRASKA.			
Omaha.....	Full cream.....	.1792	.1917
	Full cream.....	.2000	.2000

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

CHEESE, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
NEW HAMPSHIRE.			
Manchester.....	Full cream.....	\$0.1517	\$0.1558
	Full cream.....	.1600	.1607
NEW JERSEY.			
Jersey City.....	Full cream, New York State.....	.1600	.1850
	Full cream, New York State.....	.1533	.1667
Trenton.....	Full cream.....	.1600	.1653
	Full cream.....	.1733	.1750
NEW YORK.			
Albany.....	Full cream.....	.1500	.1525
	Full cream.....	.1600	.1617
Brooklyn.....	Full cream.....	.1800	.1850
	Full cream.....	.1567	.1600
Buffalo.....	Full cream.....	.1433	.1558
	Full cream.....	.1508	.1475
	Full cream.....	.1350	.1575
	Full cream.....	.1600	.1642
Flushing.....	Full cream.....	.1750	.1800
	Full cream.....	.1950	.1967
New York (a).....	Full cream.....	.1883	.1933
	Full cream.....	.1583	.1625
	Full cream, New York State.....	.1617	.1608
	Full cream, New York State.....	.1700	.1850
	Full cream, XXX, New York State.....	.1408	.1600
Rochester.....	Full cream.....	.1575	.1717
	Full cream.....	.1442	.1592
	Full cream, New York State.....	.1575	.1617
Syracuse.....	Full cream.....	.1733	.1800
	Full cream, American.....	.1600	.1653
OHIO.			
Cincinnati.....	Full cream.....	.1917	.1933
	Full cream.....	.1558	.1542
	Full cream.....	.2000	.2000
Cleveland.....	Full cream.....	.1558	.1550
	Full cream.....	.1517	.1650
	Full cream, New York State.....	.1533	.1617
	Full cream, Vermont.....	.1867	.2000
Toledo.....	Full cream.....	.1558	.1550
	Full cream, Vermont.....	.2100	.2100
OREGON.			
Portland.....	Full cream.....	.1750	.1750
	Full cream.....	.1875	.2000
PENNSYLVANIA.			
Allegheny.....	Full cream.....	.1533	.1558
	Full cream.....	.1550	.1617
Philadelphia.....	Full cream.....	.1550	.1650
	Full cream.....	.1450	.1467
	Full cream.....	.1625	.1667
	Full cream.....	.1575	.1750
	Full cream, New York State.....	.1600	.1650
	Full cream, New York State.....	.1625	.1758
Pittsburg.....	Full cream.....	.1675	.1933
	Full cream.....	.1700	.1683
Scranton.....	Full cream.....	.1558	.1700
	Full cream.....	.1600	.1600
Wilkes-Barre.....	Full cream.....	.1600	.1600
	Full cream, New York State.....	.1558	.1550
RHODE ISLAND.			
Providence.....	Full cream.....	.1600	.1650
	Full cream.....	.1650	.1700
	Full cream, fancy.....	.1508	.1592
SOUTH CAROLINA.			
Charleston.....	Full cream, American.....	.1750	.1725
	Full cream, American.....	.1575	.1650
SOUTH DAKOTA.			
Sioux Falls.....	Full cream.....	.1700	.1650
	Full cream.....	.1800	.1800
TENNESSEE.			
Memphis.....	Full cream.....	.1750	.1742
	Full cream.....	.2000	.2000
	Full cream.....	.2000	.2000
Nashville.....	Full cream.....	.2000	.2000
	Full cream.....	.1646	.1800

a Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

CHEESE, PER POUND—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
TEXAS.			
Dallas.....	Full cream.....	\$0.2000	\$0.2000
	Full cream.....	.1833	.1761
San Antonio.....	Full cream.....	.2000	.2000
	Full cream.....	.2000	.2000
UTAH.			
Salt Lake City.....	Full cream.....	.1625	.1700
	Full cream.....	.1500	.1771
VIRGINIA.			
Norfolk.....	Full cream.....	.1675	.1725
	Full cream.....	.2000	.2000
Richmond.....	Full cream.....	.1633	.1692
	Full cream.....	.1800	.1800
	Full cream.....	.1758	.1758
WASHINGTON.			
Seattle.....	Full cream.....	.2000	.2000
	Full cream.....	.1875	.2000
Tacoma.....	Full cream.....	.1500	.1300
	Full cream.....	.1833	.1833
WEST VIRGINIA.			
Wheeling.....	Full cream.....	.1600	.1683
	Full cream.....	.1950	.1950
WISCONSIN.			
Milwaukee.....	Full cream, Wisconsin.....	.1500	.1500
	Full cream, Wisconsin.....	.1417	.1450
	Full cream, Wisconsin.....	.1433	.1483

CHICKENS (FULL GROWN), DRESSED, PER POUND.

ALABAMA.			
Birmingham.....	Not drawn.....	\$0.1925	\$0.1933
	Not drawn, fowls.....	.1950	.1892
Montgomery.....	Not drawn, fowls.....	.1375	.1700
ARKANSAS.			
Little Rock.....	Fowls.....	.1500	.1392
	Fowls, medium.....	.1567	.1608
CALIFORNIA.			
Los Angeles.....	Not drawn, fowls.....	.2375	.2313
	Not drawn, fowls.....	.2375	.2333
San Francisco.....	Not drawn, fowls.....	.1758	.1783
	Not drawn, fowls.....	.1950	.1950
	Not drawn, fowls.....	.1950	.1950
COLORADO.			
Denver.....	Not drawn, fowls.....	.1200	.1517
	Not drawn, fowls.....	.1483	.1563
	Not drawn, fowls.....	.1300	.1558
CONNECTICUT.			
New Haven.....	Not drawn, fowls.....	.1733	.1733
	Not drawn, fowls.....	.1867	.1833
DELAWARE.			
Wilmington.....	Home dressed, not drawn, fowls.....	.1513	.1567
	Not drawn, fowls.....	.1900	.1600
	Not drawn, stewers, fowls.....	.1633	.1633
DISTRICT OF COLUMBIA.			
Washington.....	Not drawn, fowls.....	.1667	.1700
	Not drawn, fowls.....	.1775	.1742
	Not drawn, fowls.....	.1742	.1725
FLORIDA.			
Jacksonville.....	Not drawn, fowls.....	.2000	.1900
	Not drawn, fowls.....	.1642	.1750
GEORGIA.			
Atlanta.....	Not drawn, fowls.....	.1583	.1608
	Not drawn, fowls.....	.1604	.1667
	Not drawn, hens, roasters.....	.1688	.1692

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

CHICKENS (FULL GROWN), DRESSED, PER POUND—Continued.

State and locality.	Description.	Average price	
		1904.	1905.
ILLINOIS.			
Chicago.....	Not drawn, hens.....	\$0.1538	\$0.1442
	Not drawn, hens.....	.1538	.1567
	Not drawn, hens.....	.1542	.1500
Peoria.....	Drawn, fowls.....	.1242	.1288
	Drawn, fowls.....	.1283	.1333
	Drawn, hens.....	.1483	.1458
	Fowls.....	.1313	.1467
INDIANA.			
Indianapolis.....	Drawn, fowls.....	.1833	.1917
	Drawn, fowls.....	.1600	.1700
	Drawn, fowls.....	.1783	.1817
Terre Haute.....	Drawn, fowls.....	.1850	.1850
	Drawn, fowls.....	.1567	.1567
IOWA.			
Des Moines.....	Not drawn, fowls.....	.1558	.1517
	Not drawn, fowls.....	.1396	.1333
Dubuque.....	Not drawn, fowls.....	.1313	.1292
	Not drawn, fowls.....	.1396	.1333
KANSAS.			
Topeka.....	Not drawn, fowls.....	.1108	.1146
	Not drawn, fowls.....	.1067	.1125
KENTUCKY.			
Louisville.....	Drawn, fowls.....	.1431	.1490
LOUISIANA.			
New Orleans.....	Not drawn, fowls.....	.1700	.1650
	Not drawn, fowls.....	.1633	.1600
	Not drawn, fowls.....	.1800	.1900
MAINE.			
Portland.....	Drawn.....	.1817	.1833
	Drawn, fowls.....	.1725	.1792
MARYLAND.			
Baltimore.....	Not drawn.....	.1596	.1583
	Not drawn.....	.1567	.1583
	Not drawn, hens.....	.1475	.1517
MASSACHUSETTS.			
Boston.....	Not drawn, fowls.....	.1608	.1658
	Not drawn, fowls.....	.1558	.1625
	Not drawn, fowls.....	.1667	.1742
Fall River.....	Not drawn, fowls.....	.1917	.1967
	Not drawn, fresh.....	.2267	.2242
Lynn.....	Not drawn, fowls.....	.1600	.1600
	Not drawn, fowls.....	.1933	.1867
Malden.....	Not drawn, fowls.....	.1792	.1825
	Not drawn, fowls.....	.1483	.1417
Worcester.....	Not drawn.....	.2242	.2250
	Not drawn, fowls.....	.1892	.1833
MICHIGAN.			
Detroit.....	Not drawn, fowls.....	.1450	.1417
	Not drawn, fowls.....	.1388	.1433
Grand Rapids.....	Not drawn, fowls.....	.1383	.1492
	Not drawn, fowls.....	.1621	.1633
	Not drawn, fowls.....	.1733	.1717
	Not drawn, fowls.....	.1478	.1667
MINNESOTA.			
Duluth.....	Not drawn, fowls.....	.1279	.1488
	Not drawn, hens.....	.1442	.1458
Minneapolis.....	Not drawn, fowls.....	.1308	.1304
	Not drawn, fowls.....	.1304	.1342
St. Paul.....	Not drawn, fowls.....	.1333	.1454
	Not drawn, hens.....	.1017	.1342
MISSOURI.			
Kansas City.....	Not drawn, fowls.....	.1225	.1250
	Not drawn, fowls.....	.1221	.1267
St. Louis.....	Not drawn, hens.....	.1300	.1367
	Not drawn, hens.....	.1275	.1300
	Not drawn, hens.....	.1217	.1254
MONTANA.			
Butte.....	Not drawn, fowls.....	.1600	.1650
	Not drawn, fowls.....	.1600	.1742

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

CHICKENS (FULL GROWN), DRESSED, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
NEBRASKA.			
Omaha.....	Not drawn, fowls.....	\$0.1225	\$0.1242
	Not drawn, fowls.....	.1104	.1213
NEW HAMPSHIRE.			
Manchester.....	Drawn, fowls.....	.1883	.1967
	Drawn, fowls.....	.2100	.2200
NEW JERSEY.			
Jersey City.....	Not drawn, fowls.....	.1575	.1625
	Not drawn, fowls.....	.1458	.1525
Trenton.....	Not drawn, fowls.....	.2108	.2008
	Not drawn, fowls.....	.1750	.1750
NEW YORK.			
Albany.....	Not drawn, fowls.....	.1733	.1750
	Not drawn, fowls.....	.1508	.1600
Brooklyn.....	Not drawn, fowls.....	.1817	.1850
	Not drawn, fowls.....	.1908	.1942
	Not drawn, stewers, fowls.....	.1633	.1775
Buffalo.....	Not drawn, fowls.....	.1592	.1633
	Not drawn, fowls.....	.1492	.1450
	Not drawn, fowls.....	.1542	.1550
	Not drawn, fowls.....	.1592	.1567
Flushing.....	Not drawn, fowls.....	.1692	.1700
	Not drawn, fowls.....	.1725	.1600
New York (a).....	Not drawn, fowls.....	.2042	.1867
	Not drawn, fowls.....	.1800	.1767
	Not drawn, fowls.....	.1325	.1358
	Not drawn, fowls, best.....	.1650	.1692
Rochester.....	Fowls.....	.1363	.1313
	Not drawn, fowls.....	.1421	.1475
	Not drawn, fowls.....	.1483	.1408
Syracuse.....	Drawn, fowls.....	.1792	.1717
	Drawn, fowls.....	.2017	.1967
	Drawn, fowls.....	.2000	.2033
OHIO.			
Cincinnati.....	Drawn.....	.1850	.1733
	Drawn.....	.1817	.1750
	Drawn.....	.1858	.1850
Cleveland.....	Not drawn, fowls.....	.1525	.1633
	Not drawn, fowls.....	.1567	.1675
	Not drawn, fowls.....	.1375	.1375
Toledo.....	Not drawn, fowls.....	.1300	.1300
	Not drawn, fresh.....	.1371	.1359
OREGON.			
Portland.....	Not drawn, fowls.....	.1500	.1808
	Not drawn, fowls.....	.1500	.1742
PENNSYLVANIA.			
Allegheny.....	Drawn.....	.1867	.1917
	Drawn, fowls.....	.1883	.1900
Philadelphia.....	Not drawn, fowls.....	.1575	.1658
	Not drawn, fowls.....	.1717	.1642
	Not drawn, fowls.....	.1575	.1575
	Not drawn, fowls.....	.1883	.1717
	Not drawn, fowls, fair to good.....	.1842	.1650
Pittsburg.....	Drawn, fowls.....	.1550	.1625
	Drawn, fowls.....	.1642	.1650
Seranton.....	Not drawn, fowls.....	.1625	.1675
	Not drawn, fowls.....	.1750	.1783
Wilkes-Barre.....	Not drawn, fowls.....	.1900	.1767
	Not drawn, fowls.....	.1642	.1733
RHODE ISLAND.			
Providence.....	Not drawn.....	.2033	.2083
	Not drawn.....	.2250	.2275
SOUTH CAROLINA.			
Charleston.....	Not drawn, fowls.....	.1650	.1633
	Not drawn, fowls.....	.1692	.1742
SOUTH DAKOTA.			
Sioux Falls.....	Not drawn, fowls.....	.1146	.1125
	Not drawn, fowls.....	.1088	.1100
TENNESSEE.			
Memphis.....	Drawn, fowls.....	.1800	.1800
	Drawn, fowls.....	.1500	.1767
Nashville.....	Drawn, fowls.....	.1383	.1425

* Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

CHICKENS (FULL GROWN), DRESSED, PER POUND—Concluded.

State and locality.	Description,	Average price.	
		1904.	1905.
TEXAS.			
Dallas.....	Fowls.....	\$0.1350	\$0.1500
	Fowls.....	.1325	.1317
San Antonio.....	Drawn, fowls.....	.1667	.1667
	Drawn, fowls.....	.1271	.1720
UTAH.			
Salt Lake City.....	Not drawn, fowls.....	.1633	.1608
	Not drawn, fowls.....	.1450	.1421
VIRGINIA.			
Norfolk.....	Not drawn.....	.1458	.1433
	Not drawn.....	.1383	.1442
Richmond.....	Not drawn, fowls.....	.1592	.1675
WASHINGTON.			
Seattle.....	Not drawn, fowls.....	.1750	.1800
	Not drawn, fowls.....	.1800	.1900
	Not drawn, hens.....	.1550	.1708
Tacoma.....	Not drawn, fowls.....	.1800	.2000
	Not drawn, hens.....	.1625	.1800
WEST VIRGINIA.			
Wheeling.....	Drawn.....	.1883	.1933
	Drawn.....	.1742	.1833
WISCONSIN.			
Milwaukee.....	Not drawn, fowls.....	.1667	.1608
	Not drawn, fowls.....	.1267	.1363

COFFEE, PER POUND.

ALABAMA.			
Birmingham.....	Arbuckle's, roasted.....	\$0.1542	\$0.1563
	Mocha and Java, lowest grade, roasted.....	.2500	.2500
Montgomery.....	Arbuckle's, roasted.....	.1500	.1500
	Mocha and Java, good, roasted.....	.3500	.3500
ARKANSAS.			
Little Rock.....	Arbuckle's, medium, roasted.....	.1500	.1583
	Rio, roasted.....	.2500	.2500
CALIFORNIA.			
Los Angeles.....	Costa Rica, roasted.....	.2500	.2500
	Rio, Golden, roasted.....	.2500	.2500
San Francisco.....	Arbuckle's Ariosa, roasted.....	.1500	.1500
	Costa Rica, roasted.....	.2500	.2500
	Costa Rica, roasted.....	.2500	.2500
	Java, Old Government, roasted.....	.3500	.3500
	Rio, choice, roasted.....	.2500	.2500
COLORADO.			
Denver.....	Arbuckle's, roasted.....	.1333	.1500
	Mocha and Java, roasted.....	.2500	.2500
	Mocha and Java, medium, roasted.....	.2500	.2500
CONNECTICUT.			
New Haven.....	Mocha and Java, best, roasted.....	.3500	.3500
	Mocha and Java, roasted.....	.3500	.3500
	Santos and Maracaibo, roasted.....	.2500	.2500
	Santos and Maracaibo, roasted.....	.2500	.2500
DELAWARE.			
Wilmington.....	Maracaibo, roasted.....	.3000	.3000
	Maracaibo, roasted and ground.....	.3000	.3000
DISTRICT OF COLUMBIA.			
Washington.....	Mocha and Java, medium, roasted.....	.2500	.2500
	Mocha and Java, medium, roasted.....	.2500	.2500
	Rio, cheap grade, roasted.....	.1400	.1508
	Rio, medium, or similar grade, roasted.....	.3000	.2900
FLORIDA.			
Jacksonville.....	Arbuckle's, roasted.....	.1620	.1800
	Arbuckle's, roasted.....	.1500	.1550
	Rio and Maracaibo, roasted.....	.2500	.2500
GEORGIA.			
Atlanta.....	Mocha, best, roasted.....	.3500	.3900
	Mocha and Java, roasted.....	.2500	.2500
	Rio, fair, roasted.....	.1333	.1500

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

COFFEE, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
ILLINOIS.			
Chicago.....	Rio and Santos, roasted.....	\$0.1525	\$0.1500
	Rio and Santos, roasted.....	.1700	.1700
	Rio and Santos, roasted.....	.1600	.1600
	Rio, Golden, choice, green.....	.1600	.1600
	Santos, roasted.....	.1600	.2000
Peoria.....	Java, roasted.....	.3500	.3500
	Rio, medium, roasted.....	.2500	.2500
	Rio, roasted.....	.1558	.1800
	Santos, old, roasted and ground.....	.2500	.2500
INDIANA.			
Indianapolis.....	Arbuckle's, roasted.....	.1304	.1517
	Arbuckle's, roasted.....	.1500	.1575
Terre Haute.....	Maracalbo, roasted.....	.3000	.3000
	Rio and Santos, roasted.....	.2000	.2000
IOWA.			
Des Moines.....	Mocha and Java, medium, roasted.....	.3000	.3000
	Rio and Santos, medium, roasted.....	.2000	.2000
Dubuque.....	Arbuckle's, roasted.....	.1563	.1750
	Blended, medium, roasted.....	.2000	.2000
KANSAS.			
Topeka.....	Rio, roasted.....	.1500	.1500
	Rio, roasted.....	.1500	.1500
KENTUCKY.			
Louisville.....	Rio, good, roasted.....	.2033	.2100
	Rio, medium, roasted.....	.1750	.1958
LOUISIANA.			
New Orleans.....	Cordova, roasted.....	.2000	.2000
	Rio and Cordova, green.....	.1271	.1300
	Rio and Cordova, green.....	.1500	.1500
MAINE.			
Portland.....	Rio, Golden, No. 3, roasted.....	.1800	.1800
	Rio, roasted.....	.1500	.1500
MARYLAND.			
Baltimore.....	Rio, best, roasted.....	.1742	.1742
	Rio, standard, roasted.....	.1400	.1583
	Rio, standard, roasted.....	.1633	.1607
	Rio, standard, roasted.....	.1600	.1600
MASSACHUSETTS.			
Boston.....	Central and South American, good, roasted.....	.2500	.2500
	Mocha and Java, Golden Rose, roasted.....	.2033	.2200
	Mocha and Java, roasted.....	.3400	.3300
	Rio, best, roasted.....	.2000	.2000
Fall River.....	Bogota and Mexican, roasted.....	.2000	.2000
	Mocha and Java, medium, roasted.....	.3000	.3000
Lynn.....	Mocha and Java, medium, roasted.....	.1900	.1900
	Mocha and Java, medium, roasted.....	.3000	.3000
Malden.....	Mocha and Java, roasted.....	.2100	.2200
	Mocha and Java, roasted.....	.3000	.3000
Worcester.....	Mocha and Java, best, roasted.....	.3800	.3933
	Mocha and Java, roasted.....	.3300	.3300
MICHIGAN.			
Detroit.....	Bogota, roasted.....	.2502	.2502
	Java and Maracalbo, roasted.....	.2500	.2500
Grand Rapids.....	Merique blend, roasted.....	.3200	.3200
	Merique blend, roasted.....	.3000	.3000
MINNESOTA.			
Duluth.....	Arbuckle's Ariosa or similar grade, roasted.....	.1800	.1800
	Bell Gona, Brazil, medium, roasted.....	.2000	.2417
Minneapolis.....	Arbuckle's Ariosa, roasted.....	.1575	.1800
	Arbuckle's Ariosa, roasted.....	.1575	.1800
	Charm, Java, roasted.....	.2500	.2500
St. Paul.....	Arbuckle's Ariosa, roasted.....	.1625	.1800
	Blended, medium, roasted.....	.3000	.3000
MISSOURI.			
Kansas City.....	Rio, roasted.....	.1500	.1500
	Santos, roasted.....	.2000	.2000
St. Louis.....	Guatemala, roasted.....	.2500	.2500
	Java and Maracalbo, roasted.....	.2000	.2000
	Java, medium, roasted.....	.2500	.2500
	Rio, medium, roasted.....	.2000	.2000

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

COFFEE, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
MONTANA.			
Butte.....	Mocha and Java, roasted.....	\$0.3000	\$0.3000
	Mocha and Java, roasted.....	.3000	.3000
NEBRASKA.			
Omaha.....	Rio, roasted.....	.1500	.1500
	Santos, roasted.....	.2000	.2000
NEW HAMPSHIRE.			
Manchester.....	Maracaibo, No. 1, roasted.....	.3000	.3000
	Rio, roasted.....	.2500	.2125
	Santos, No. 1, roasted.....	.1800	.1917
NEW JERSEY.			
Jersey City.....	Maracaibo, roasted.....	.2500	.2500
	Mocha and Java, roasted.....	.2500	.2500
Trenton.....	Java and No. 1 Maracaibo, roasted.....	.3000	.3000
	Rio, best, roasted.....	.2000	.2000
	Santos, medium, roasted.....	.2000	.2000
NEW YORK.			
Albany.....	Maracaibo, roasted.....	.2500	.2500
	Mocha and Java, medium, roasted.....	.3000	.3000
Brooklyn.....	Java and Maracaibo, roasted.....	.3000	.3000
	Java and Maracaibo, roasted.....	.3200	.3200
	Rio, medium, roasted.....	.2000	.2000
Buffalo.....	Maracaibo, medium, roasted.....	.2500	.2500
	Mocha and Java, best, roasted.....	.3500	.3500
Flushing.....	Java, roasted.....	.3000	.3000
	Maracaibo, roasted.....	.2000	.2000
New York (a).....	Java, good, roasted.....	.2500	.2500
	Rio, Golden, No. 6, roasted.....	.1650	.1583
	Rio, Golden, No. 3, roasted.....	.1800	.1800
	Rio, good, roasted.....	.1700	.1650
Rochester.....	Rio, Golden, roasted.....	.2000	.2000
	Rio, low grade, roasted.....	.1500	.1600
	Rio, roasted.....	.1800	.1800
Syracuse.....	Princess blend, roasted.....	.2500	.2500
	Rio, low grade, roasted.....	.1500	.1500
	Santos, best, roasted.....	.2500	.2500
OHIO.			
Cincinnati.....	Santos, No. 1, roasted.....	.2000	.2000
	Santos, No. 1, roasted.....	.2000	.2000
	Santos, roasted.....	.2000	.2000
	Santos, roasted.....	.2000	.2000
Cleveland.....	Rio, best, roasted.....	.2000	.2000
	Rio, medium, roasted.....	.1400	.1400
	Rio, roasted.....	.2000	.2000
	Rio, roasted.....	.1400	.1400
	Santos, second grade, roasted.....	.1800	.1800
Toledo.....	Mocha and Java, roasted.....	.3500	.3500
	Rio, ground, roasted.....	.1500	.1500
OREGON.			
Portland.....	Columbia, roasted.....	.2000	.2000
	Mocha and Java, roasted.....	.2500	.2500
PENNSYLVANIA.			
Allegheny.....	Arbuckle's, roasted.....	.1500	.1533
	Arbuckle's, roasted.....	.1417	.1558
Philadelphia.....	Java, roasted.....	.3500	.3500
	Rio, roasted.....	.1500	.2000
	Rio, roasted.....	.2000	.2000
	Santos, good, roasted.....	.1800	.1800
	Santos, good, roasted.....	.2000	.2000
Pittsburg.....	Arbuckle's, roasted.....	.1500	.1525
	Arbuckle's, roasted.....	.1433	.1525
Scranton.....	Mocha and Java, roasted.....	.2500	.2500
	Rio, medium, roasted.....	.2500	.2500
Wilkes-Barre.....	Arbuckle's, roasted.....	.1500	.1500
	Rio, choice, No. 1, roasted.....	.2500	.2500
RHODE ISLAND.			
Providence.....	Java, fair, roasted.....	.3500	.3500
	Java, medium, roasted.....	.3000	.3000
	Java, Padang, roasted.....	.3000	.3000
SOUTH CAROLINA.			
Charleston.....	Maracaibo, green.....	.1500	.1500
	Rio, choice, green.....	.1250	.1250
	Santos, roasted and ground.....	.1500	.1500

(a) Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

COFFEE, PER POUND—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
SOUTH DAKOTA.			
Sioux Falls.....	Santos, roasted.....	\$0.2000	\$0.2000
	Santos, roasted.....	.2000	.2000
TENNESSEE.			
Memphis.....	Rio and African, Java, roasted.....	.2000	.2063
	Rio and Java, roasted.....	.2500	.2500
	Rio, Santos, and Maracaibo, roasted.....	.2000	.2200
Nashville.....	Rio, roasted.....	.2000	.2000
	Santos and Maracaibo, roasted.....	.2500	.2500
TEXAS.			
Dallas.....	Arbuckle's, roasted.....	.1500	.1625
	Arbuckle's, roasted.....	.1500	.1917
San Antonio.....	Arbuckle's, roasted.....	.1438	.1625
	Mexican Cordova, roasted.....	.2000	.2000
UTAH.			
Salt Lake City.....	Arbuckle's, roasted.....	.1813	.2000
	Mocha and Java, roasted.....	.2500	.2500
VIRGINIA.			
Norfolk.....	Blended, roasted.....	.2000	.2000
	Mocha and Java, roasted.....	.3500	.3500
Richmond.....	Arbuckle's, roasted.....	.1363	.1325
	Rio, best, roasted.....	.2500	.2500
	Rio and La Guayra, roasted.....	.2000	.2000
WASHINGTON.			
Seattle.....	Costa Rica, medium, roasted.....	.2500	.2500
	Peaberry or Caracola, roasted.....	.2500	.2500
Tacoma.....	Costa Rica and Guatemala, roasted.....	.2500	.2500
	Mocha and Java, roasted.....	.3500	.3500
	Santos, roasted.....	.2500	.2500
WEST VIRGINIA.			
Wheeling.....	Rio, Arbuckle's, roasted.....	.1325	.1458
	White Star, medium, roasted.....	.2500	.2500
WISCONSIN.			
Milwaukee.....	Rio, Golden, medium, roasted.....	.2000	.2000
	Santos, cheap grade, roasted.....	.1600	.1500

CORN MEAL, PER POUND.

ALABAMA.			
Birmingham.....	White, sold in 10-pound lots.....	\$0.0208	\$0.0213
	White, sold in 10-pound lots.....	.0250	.0250
	White, sold in 12-pound lots.....	.0177	.0167
Montgomery.....	White, sold by the bushel.....	.0153	.0151
	White, sold by the peck.....	.0174	.0174
	White, sold in 10-pound lots.....	.0200	.0200
ARKANSAS.			
Little Rock.....	White, sold in 10-pound lots.....	.0180	.0180
	White, sold in 10-pound lots.....	.0210	.0210
	White, sold in 10-pound lots.....	.0180	.0180
CALIFORNIA.			
Los Angeles.....	White, sold in 10-pound lots.....	.0300	.0300
	Yellow, sold in 10-pound lots.....	.0250	.0250
San Francisco.....	White, sold in 10-pound lots.....	.0400	.0450
	White, sold in 10-pound lots.....	.0300	.0300
	Yellow, sold in 10-pound lots.....	.0300	.0300
	Yellow, sold in 10-pound lots.....	.0300	.0300
COLORADO.			
Denver.....	White, sold in 10-pound lots.....	.0250	.0250
	White, sold in 10-pound lots.....	.0200	.0200
CONNECTICUT.			
New Haven.....	Yellow, granulated, sold in 10-pound lots.....	.0350	.0350
	Yellow, granulated, sold in 10-pound lots.....	.0250	.0250
DELAWARE.			
Wilmington.....	White, sold in 2-pound lots.....	.0250	.0250
	White, sold in 10-pound lots.....	.0250	.0250
	White, sold in 10-pound lots.....	.0200	.0200

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

CORN MEAL, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
DISTRICT OF COLUMBIA.			
Washington.....	White, sold in 3-pound lots.....	\$0.0211	\$0.0200
	White, sold in 12-pound lots.....	.0167	.0167
	White, sold in 12-pound lots.....	.0183	.0183
FLORIDA.			
Jacksonville.....	White, sold in 10-pound lots.....	.0200	.0200
	White, sold in 10-pound lots.....	.0300	.0200
	White, sold in 10-pound lots.....	.0200	.0200
GEORGIA.			
Atlanta.....	White, sold in 10-pound lots.....	.0175	.0175
	White, sold in 10-pound lots.....	.0228	.0210
	White, sold in 10-pound lots.....	.0200	.0200
ILLINOIS.			
Chicago.....	Cream.....	.0200	.0250
	Cream.....	.0250	.0250
	Cream, sold in 10-pound lots.....	.0250	.0250
	White.....	.0250	.0200
Peoria.....	White, sold in 10-pound lots.....	.0200	.0200
	White, sold in 10-pound lots.....	.0196	.0200
	White, sold in 10-pound lots.....	.0200	.0200
INDIANA.			
Indianapolis.....	White.....	.0200	.0200
	White.....	.0200	.0200
Terre Haute.....	White.....	.0200	.0200
	White, sold by the peck.....	.0160	.0160
IOWA.			
Des Moines.....	Yellow, sold in 10-pound lots.....	.0167	.0150
	Yellow, sold in 10-pound lots.....	.0125	.0125
Dubuque.....	Yellow, sold in 10-pound lots.....	.0200	.0200
	Yellow, sold in 10-pound lots.....	.0200	.0200
KANSAS.			
Topeka.....	White or yellow, sold in 10-pound lots.....	.0150	.0150
	White or yellow, sold in 10-pound lots.....	.0150	.0200
KENTUCKY.			
Louisville.....	White, sold in 10-pound lots.....	.0163	.0198
	White, sold in 10-pound lots.....	.0150	.0150
	White, sold in 10-pound lots.....	.0205	.0205
LOUISIANA.			
New Orleans.....	White.....	.0250	.0250
	White.....	.0219	.0250
	White, kiln-dried.....	.0250	.0250
	White, sold in 10-pound lots.....	.0250	.0250
MAINE.			
Portland.....	Yellow.....	.0300	.0300
	Yellow, sold in 10-pound lots.....	.0250	.0250
MARYLAND.			
Baltimore.....	White, sold in 10-pound lots.....	.0200	.0200
	White, sold in 10-pound lots.....	.0250	.0250
	White, sold in 10-pound lots.....	.0200	.0200
	White, sold in 10-pound lots.....	.0250	.0250
MASSACHUSETTS.			
Boston.....	Yellow, granulated, sold in 10-pound lots.....	.0250	.0250
	Yellow, sold in 10-pound lots.....	.0218	.0248
	Yellow, sold in 10-pound lots.....	.0245	.0250
Fall River.....	White.....	.0300	.0300
	White, best, sold by the peck.....	.0363	.0385
Lynn.....	Yellow, sold in 10-pound lots.....	.0250	.0250
	Yellow, sold in 10-pound lots.....	.0250	.0250
Malden.....	Yellow, sold in 10-pound lots.....	.0218	.0248
	Yellow, sold in 10-pound lots.....	.0250	.0250
Worcester.....	White, sold in 10-pound lots.....	.0250	.0300
	Yellow, sold in 10-pound lots.....	.0250	.0250
MICHIGAN.			
Detroit.....	White, best.....	.0250	.0242
	Yellow, sold in 10-pound lots.....	.0212	.0202
	Yellow, sold in 10-pound lots.....	.0213	.0211
Grand Rapids.....	Yellow, granulated, sold in 12½-pound lots.....	.0300	.0200
	Yellow, sold in 10-pound lots.....	.0150	.0150
MINNESOTA.			
Duluth.....	Yellow.....	.0300	.0200
	Yellow, sold in 10-pound lots.....	.0250	.0250

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

CORN MEAL, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
MINNESOTA—concluded.			
Minneapolis.....	Sold in 10-pound lots.....	\$0.0250	\$0.0250
	Sold in 10-pound lots.....	.0200	.0200
	Yellow, sold in 10-pound lots.....	.0218	.0212
St. Paul.....	Sold in 10-pound lots.....	.0200	.0200
	Sold in 10-pound lots.....	.0200	.0200
MISSOURI.			
Kansas City.....	White, sold in 10-pound lots.....	.0150	.0150
	White, sold in 10-pound lots.....	.0150	.0200
St. Louis.....	Cream, sold in 10-pound lots.....	.0250	.0250
	White, sold in 12-pound lots.....	.0167	.0167
	White, sold by the peck.....	.0167	.0167
MONTANA.			
Butte.....	Sold in 10-pound lots.....	.0350	.0329
	Sold in 10-pound lots.....	.0350	.0300
NEBRASKA.			
Omaha.....	White, sold in 10-pound lots.....	.0185	.0200
	White or yellow, sold in 10-pound lots....	.0200	.0200
NEW HAMPSHIRE.			
Manchester.....	Yellow, sold in 10-pound lots.....	.0250	.0250
	Yellow, sold in 10-pound lots.....	.0250	.0250
NEW JERSEY.			
Jersey City.....	White, sold in 10-pound lots.....	.0250	.0250
	Yellow, granulated, sold in 10-pound lots.....	.0280	.0280
Frenton.....	Yellow, sold in 10-pound lots.....	.0250	.0250
	Yellow, sold in 10-pound lots.....	.0250	.0250
NEW YORK.			
Albany.....	Yellow, sold in 10-pound lots.....	.0250	.0250
	Yellow, sold in 10-pound lots.....	.0250	.0250
Brooklyn.....	Yellow, sold in 34-pound lots.....	.0286	.0286
	Yellow, sold in 34-pound lots.....	.0343	.0343
Buffalo.....	Yellow.....	.0200	.0200
	Yellow, sold in 10-pound lots.....	.0204	.0200
Flushing.....	Yellow, kiln-dried, sold in 7-pound lots..	.0286	.0286
	Yellow, sold in 34-pound lots.....	.0429	.0429
	White, kiln-dried, sold in 10-pound lots..	.0200	.0200
New York (a).....	Yellow.....	.0325	.0325
	Yellow, kiln-dried.....	.0300	.0300
	Yellow, kiln-dried, sold in 1 to 3 pound lots.....	.0300	.0300
	Yellow, sold in 34-pound lots.....	.0295	.0286
Rochester.....	Yellow.....	.0300	.0300
	Yellow.....	.0250	.0250
Syracuse.....	Yellow.....	.0250	.0250
	Yellow.....	.0250	.0250
OHIO.			
Cincinnati.....	White.....	.0200	.0200
	White.....	.0250	.0250
	White, pearl.....	.0250	.0250
Cleveland.....	Yellow, granulated.....	.0250	.0250
	Yellow, granulated.....	.0250	.0250
	Yellow, sold in 10-pound lots.....	.0250	.0250
Toledo.....	Yellow.....	.0200	.0200
	Yellow, sold in 10-pound lots.....	.0250	.0250
OREGON.			
Portland.....	White, sold in 10-pound lots.....	.0300	.0300
	White, sold in 10-pound lots.....	.0250	.0250
PENNSYLVANIA.			
Allegheny.....	Yellow, sold in 10-pound lots.....	.0243	.0220
	Yellow, sold in 10-pound lots.....	.0220	.0220
	Yellow, sold in 10-pound lots.....	.0250	.0250
Philadelphia.....	Granulated.....	.0283	.0250
	White.....	.0250	.0250
	White.....	.0200	.0200
Pittsburg.....	White.....	.0250	.0250
	White.....	.0250	.0250
Scranton.....	White, sold in 10-pound lots.....	.0300	.0300
	Yellow.....	.0300	.0300
Wilkes-Barre.....	Yellow, sold in 10-pound lots.....	.0300	.0300
	Yellow, sold in 10-pound lots.....	.0250	.0250

(a) Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

CORN MEAL, PER POUND—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
RHODE ISLAND.			
Providence.....	White, granulated, sold in 10-pound lots.....	\$0.0271	\$0.0250
	White, granulated, sold in 10-pound lots.....	.0250	.0250
	Yellow, sold in 10-pound lots.....	.0250	.0250
SOUTH CAROLINA.			
Charleston.....	White, sold in 10-pound lots.....	.0180	.0180
	White, sold in 10-pound lots.....	.0200	.0200
	White, sold in 10-pound lots.....	.0200	.0200
SOUTH DAKOTA.			
Sioux Falls.....	White, sold in 10-pound lots.....	.0200	.0200
	White, sold in 10-pound lots.....	.0200	.0200
TENNESSEE.			
Memphis.....	White, sold by the peck.....	.0240	.0227
	White, sold by the peck.....	.0200	.0200
	White, sold in 12-pound lots.....	.0167	.0167
Nashville.....	White, sold in 12-pound lots.....	.0181	.0191
	White, sold in 12-pound lots.....	.0167	.0167
	White, sold in 12-pound lots.....	.0167	.0208
TEXAS.			
Dallas.....	Sold by the peck.....	.0180	.0188
	White, sold in 10-pound lots.....	.0250	.0250
	White, sold in 10-pound lots.....	.0250	.0259
San Antonio.....	White, sold in 10-pound lots.....	.0167	.0170
	White, sold in 10-pound lots.....	.0180	.0180
	White, sold in 10-pound lots.....	.0200	.0200
UTAH.			
Salt Lake City.....	White, sold in 10-pound lots.....	.0250	.0250
	White, sold in 10-pound lots.....	.0250	.0250
VIRGINIA.			
Norfolk.....	White, sold in 10-pound lots.....	.0200	.0200
	White, sold in 10-pound lots.....	.0180	.0180
	White, sold in 12-pound lots.....	.0208	.0208
Richmond.....	White, sold in 12-pound lots.....	.0167	.0167
	White, sold in 12-pound lots.....	.0167	.0167
	White, sold in 12-pound lots.....	.0167	.0167
WASHINGTON.			
Seattle.....	Yellow, sold in 10-pound lots.....	.0250	.0250
	Yellow, sold in 10-pound lots.....	.0250	.0250
Tacoma.....	Yellow, sold in 10-pound lots.....	.0300	.0300
	Yellow, sold in 10-pound lots.....	.0300	.0300
WEST VIRGINIA.			
Wheeling.....	White, sold in 10-pound lots.....	.0200	.0200
	White, sold in 10-pound lots.....	.0250	.0250
	White, sold in 10-pound lots.....	.0250	.0250
WISCONSIN.			
Milwaukee.....	White.....	.0250	.0250
	White, kiln-dried.....	.0300	.0300

EGGS, PER DOZEN.

ALABAMA.			
Birmingham.....	Fresh.....	\$0.2525	\$0.2417
	Fresh.....	.2500	.2392
	Fresh, country.....	.2583	.2458
Montgomery.....	Fresh.....	.2000	.2104
	Fresh, country.....	.2125	.2083
	Fresh, country.....	.2292	.2125
	Fresh, country.....	.2167	.2125
ARKANSAS.			
Little Rock.....	Fresh.....	.2333	.2292
	Fresh.....	.2292	.2250
	Fresh.....	.2208	.2438
CALIFORNIA.			
Los Angeles.....	Fresh.....	.2833	.3000
	Fresh.....	.3313	.3375
	Fresh, ranch.....	.3083	.2883

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

EGGS, PER DOZEN—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
CALIFORNIA—concluded.			
San Francisco.....	Fresh.....	\$0.2758	\$0.3042
	Fresh.....	.3392	.3667
	Fresh.....	.3333	.3583
	Fresh, country.....	.3800	.3875
	Fresh, ranch.....	.3375	.3583
COLORADO.			
Denver.....	Fresh.....	.2750	.2417
	Fresh.....	.2833	.2833
	Fresh.....	.2750	.2458
CONNECTICUT.			
New Haven.....	Fresh.....	.3417	.3433
	Fresh.....	.3317	.3542
	Fresh, country.....	.3125	.3158
DELAWARE.			
Wilmington.....	Fresh.....	.2900	.3133
	Fresh.....	.3150	.3275
	Fresh, near-by.....	.3158	.3158
DISTRICT OF COLUMBIA.			
Washington.....	Fresh.....	.2883	.2742
	Fresh, country.....	.2708	.2625
	Fresh, country.....	.2758	.2758
FLORIDA.			
Jacksonville.....	Fresh.....	.2708	.2708
	Fresh.....	.3042	.2917
	Fresh.....	.2292	.3042
GEORGIA.			
Atlanta.....	Fresh.....	.2213	.2450
	Fresh, country.....	.2067	.2192
	Fresh, country.....	.2233	.2208
ILLINOIS.			
Chicago.....	Fresh, country.....	.2392	.2442
	Fresh, country.....	.2042	.2125
	Fresh, country.....	.2475	.2467
	Fresh, country.....	.2550	.2292
	Fresh, country.....	.2583	.2613
Peoria.....	Fresh.....	.2142	.2717
	Fresh.....	.1930	.2633
	Fresh.....	.2275	.2483
INDIANA.			
Indianapolis.....	Country.....	.2592	.2383
	Country.....	.2130	.2200
	Fresh.....	.2375	.2258
Terre Haute.....	Country.....	.2442	.2542
	Fresh.....	.2792	.2575
	Fresh.....	.2858	.2621
IOWA.			
Des Moines.....	Fresh.....	.2429	.2475
	Fresh.....	.2250	.2500
	Fresh.....	.2458	.2500
Dubuque.....	Fresh.....	.2267	.2292
	Fresh.....	.2271	.2271
	Fresh.....	.2104	.2275
KANSAS.			
Topeka.....	Fresh.....	.2433	.2250
	Fresh.....	.2500	.2358
	Fresh.....	.2408	.2300
KENTUCKY.			
Louisville.....	Fresh.....	.2375	.2521
	Fresh, country.....	.2306	.2583
	Fresh, country.....	.2175	.2150
LOUISIANA.			
New Orleans.....	Country.....	.2892	.2625
	Country.....	.2458	.2546
	Fresh.....	.2583	.2554
	Fresh, country.....	.2271	.2113
MAINE.			
Portland.....	Country.....	.2958	.3075
	Fresh.....	.3042	.3129
	Fresh, country.....	.3158	.3242

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

EGGS, PER DOZEN—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
MARYLAND.			
Baltimore.....	Fresh.....	\$0.2725	\$0.2725
	Fresh.....	.2608	.2617
	Fresh.....	.2608	.2708
	Fresh, country.....	.2908	.2958
MASSACHUSETTS.			
Boston.....	Fresh, case.....	.3167	.3058
	Fresh, eastern.....	.2575	.2242
	Fresh, eastern.....	.3000	.3275
	Fresh, medium.....	.2683	.2575
Fall River.....	Fresh.....	.2850	.2967
	Fresh.....	.2433	.2417
	Fresh, country.....	.2925	.2933
Lynn.....	Fresh.....	.2708	.2708
	Fresh.....	.3602	.3417
	Fresh, near-by.....	.3054	.3338
Malden.....	Fresh.....	.2375	.2242
	Fresh.....	.2858	.2917
	Fresh.....	.3392	.3475
Worcester.....	Fresh.....	.2950	.3133
	Fresh, country.....	.3342	.3392
	Fresh, country.....	.3167	.3217
MICHIGAN.			
Detroit.....	Fresh.....	.2462	.2317
	Fresh.....	.2700	.2550
	Fresh.....	.2733	.2658
	Fresh.....	.2462	.2358
Grand Rapids.....	Fresh.....	.2325	.2317
	Fresh.....	.2292	.2408
	Fresh.....	.2383	.2383
	Fresh.....	.2450	.2453
MINNESOTA.			
Duluth.....	Fresh.....	.2450	.2317
	Fresh.....	.2383	.2217
	Fresh, country.....	.2442	.2333
Minneapolis.....	Fresh.....	.2225	.2108
	Fresh.....	.2383	.2283
	Fresh.....	.2192	.2183
	Fresh.....	.2308	.2150
St. Paul.....	Fresh.....	.2258	.2258
	Fresh.....	.2292	.2142
	Fresh.....	.2358	.2200
MISSOURI.			
Kansas City.....	Fresh.....	.2608	.2333
	Fresh.....	.2425	.2267
	Fresh.....	.2500	.2433
St. Louis.....	Fresh.....	.2458	.2483
	Fresh.....	.2733	.2408
	Fresh, country.....	.2500	.2567
	Fresh, country.....	.2575	.2667
MONTANA.			
Butte.....	Fresh, ranch.....	.2792	.3000
	Fresh, ranch.....	.2833	.2917
	Fresh, ranch.....	.3250	.3150
NEBRASKA.			
Omaha.....	Fresh.....	.2233	.2192
	Fresh.....	.2450	.2283
	Fresh.....	.2358	.2217
NEW HAMPSHIRE.			
Manchester.....	Fresh.....	.2750	.2858
	Fresh.....	.3133	.3275
	Fresh, country.....	.2817	.2883
NEW JERSEY.			
Jersey City.....	Fresh.....	.2675	.3025
	Fresh.....	.2883	.2942
	Fresh.....	.2900	.2975
Trenton.....	Fresh.....	.2975	.2875
	Fresh.....	.3108	.3125
	Fresh, country.....	.3100	.3108
NEW YORK.			
Albany.....	Fresh.....	.2058	.2308
	Fresh.....	.2825	.2833
	Fresh.....	.3000	.2875

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

EGGS, PER DOZEN—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
NEW YORK—concluded.			
Brooklyn.....	Fresh.....	\$0.2942	\$0.2967
	Fresh.....	.3150	.3525
	Fresh.....	.2850	.2833
Buffalo.....	Fresh.....	.2750	.2608
	Fresh.....	.2400	.2458
	Fresh.....	.2425	.2333
Flushing.....	Fresh, country.....	.2383	.2508
	Fresh, country.....	.2733	.2442
	Fresh.....	.2658	.3192
New York (c).....	Fresh.....	.3308	.3308
	Fresh, New York State.....	.2583	.3083
	Fresh.....	.2917	.2813
Rochester.....	Fresh.....	.3325	.3533
	Fresh.....	.3083	.3067
	Fresh, country.....	.3033	.3083
Syracuse.....	Fresh, New York State.....	.3650	.3467
	Cold storage.....	.2392	.2333
	Fresh.....	.2525	.2450
Syracuse.....	Fresh, country.....	.3117	.3142
	Fresh.....	.2875	.2842
	Fresh.....	.3025	.2883
Syracuse.....	Fresh, country.....	.3017	.2742
	OHIO.		
	Cincinnati.....	Fresh.....	.3042	.2950
Fresh.....		.2233	.2367
Fresh.....		.2233	.2408
Cleveland.....	Fresh.....	.2508	.2700
	Fresh.....	.2858	.2775
	Fresh, country.....	.2867	.2862
Toledo.....	Fresh, country.....	.2900	.3117
	Fresh, country.....	.2592	.2858
	Fresh.....	.2600	.2600
Toledo.....	Fresh.....	.2333	.2392
	Fresh, country.....	.2267	.2192
	OREGON.		
Portland.....	Fresh.....	.2600	.2833
	Fresh.....	.2833	.2833
	Fresh.....	.2917	.2833
PENNSYLVANIA.			
Allegheny.....	Fresh, country.....	.2808	.2862
	Fresh, country.....	.2425	.2342
	Fresh, country.....	.3017	.2975
Philadelphia.....	Fresh.....	.2683	.2425
	Fresh, country.....	.2842	.2700
	Fresh, country.....	.3108	.3150
Pittsburg.....	Fresh, country.....	.2900	.2908
	Fresh, country.....	.2750	.2825
	Fresh, country.....	.3067	.2325
Scranton.....	Fresh, country.....	.2600	.2750
	Fresh, country.....	.2662	.2733
	Fresh, country.....	.2567	.2708
Wilkes-Barre.....	Fresh.....	.2883	.2825
	Fresh, country.....	.2883	.2908
	Fresh, country.....	.2950	.2858
Wilkes-Barre.....	Fresh.....	.2925	.3000
	Fresh, country.....	.2825	.2758
	Fresh, country.....	.3142	.3025
RHODE ISLAND.			
Providence.....	First grade.....	.3275	.2850
	Fresh, country.....	.3117	.3225
	Fresh, country.....	.3842	.3742
SOUTH CAROLINA.			
Charleston.....	Fresh.....	.2500	.2417
	Fresh.....	.2392	.2433
	Fresh, country.....	.2483	.2608
SOUTH DAKOTA.			
Sioux Falls.....	Fresh.....	.2358	.2542
	Fresh.....	.2075	.2050
	Fresh.....	.2008	.1850
Sioux Falls.....	Fresh.....	.2125	.2125

* Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

EGGS, PER DOZEN—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
TENNESSEE.			
Memphis.....	Country.....	\$0. 2500	\$0. 2708
	Fresh, country.....	. 2231	. 2143
Nashville.....	Fresh, country.....	. 2086	. 2267
	Country.....	. 2050	. 2217
	Fresh.....	. 2083	. 2125
	Fresh, country.....	. 1858	. 1771
TEXAS.			
Dallas.....	Fresh.....	. 2125	. 2188
	Fresh.....	. 1958	. 2250
	Fresh, country.....	. 2379	. 2292
San Antonio.....	Fresh.....	. 1813	. 1833
	Fresh.....	. 2000	. 1979
	Fresh, country.....	. 1958	. 2271
UTAH.			
Salt Lake City.....	Fresh.....	. 2813	. 2750
	Fresh.....	. 2292	. 2417
	Fresh.....	. 2521	. 2688
VIRGINIA.			
Norfolk.....	Fresh.....	. 2375	. 2275
	Fresh.....	. 2392	. 2292
	Fresh.....	. 2392	. 2292
Richmond.....	Fresh.....	. 2500	. 2400
	Fresh.....	. 2450	. 2450
	Fresh.....	. 2394	. 2546
WASHINGTON.			
Seattle.....	Fresh.....	. 3375	. 3375
	Fresh.....	. 3458	. 3292
	Fresh.....	. 3625	. 3808
Tacoma.....	Fresh.....	. 2563	. 2604
	Fresh.....	. 2992	. 3058
	Fresh.....	. 2917	. 3292
WEST VIRGINIA.			
Wheeling.....	Fresh, country.....	. 2542	. 2617
	Fresh, country.....	. 2592	. 2625
	Fresh, country.....	. 2542	. 2700
WISCONSIN.			
Milwaukee.....	Fresh.....	. 2450	. 2483
	Fresh, near-by.....	. 2500	. 2292
	Fresh, near-by.....	. 1838	. 2083

FISH, FRESH, PER POUND.

ALABAMA.			
Birmingham.....	Red snapper.....	\$0. 1250	\$0. 1250
	Red snapper.....	. 1250	. 1250
Montgomery.....	Mullet.....	. 0633	. 0633
	Mullet.....	. 0500	. 0500
ARKANSAS.			
Little Rock.....	Buffalo or drum.....	. 0800	. 0800
	Red snapper, crappie, or channel cat.....	. 1500	. 1500
CALIFORNIA.			
Los Angeles.....	Halibut.....	. 1000	. 1000
	Halibut.....	. 1000	. 1000
San Francisco.....	Salmon.....	. 1750	. 1500
	Salmon.....	. 1750	. 1500
	Salmon.....	. 1563	. 1458
	Salmon.....	. 1563	. 1396
COLORADO.			
Denver.....	Halibut.....	. 1400	. 1400
	Halibut.....	. 1500	. 1500
	Salmon.....	. 1500	. 1500
CONNECTICUT.			
New Haven.....	Cod steak.....	. 1317	. 1367
	Haddock.....	. 0933	. 0933
	Haddock.....	. 0933	. 0933
	Haddock.....	. 0933	. 0933
	Halibut steak.....	. 2450	. 2458
	Pickarel.....	. 1483	. 1600

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

FISH, FRESH, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
DELAWARE.			
Wilmington.....	Haddock.....	\$0.1000	\$0.1000
	Trout.....	.1000	.1000
DISTRICT OF COLUMBIA.			
Washington.....	Catfish, cleaned.....	.1271	.1208
	Cod steak.....	.1250	.1263
	Halibut steak.....	.1917	.1667
	White perch, large.....	.1417	.1396
	White perch, small.....	.1188	.1271
	White perch, small.....	.1146	.1076
FLORIDA.			
Jacksonville.....	Local varieties.....	.0500	.0500
	Mullet.....	.0500	.0500
	Mullet.....	.0500	.0500
GEORGIA.			
Atlanta.....	Red snapper.....	.1000	.1000
	Red snapper.....	.1083	.1250
	Trout.....	.1000	.1117
ILLINOIS.			
Chicago.....	Whitefish.....	.0925	.1117
Peoria.....	Catfish.....	.1250	.1333
	Catfish.....	.1250	.1250
	Whitefish.....	.1646	.1708
INDIANA.			
Indianapolis.....	Lake salmon.....	.1500	.1500
	Whitefish.....	.1200	.1200
Terre Haute.....	Halibut, Pacific.....	.1500	.1500
	Lake trout.....	.1250	.1250
IOWA.			
Des Moines.....	Buffalo.....	.1000	.1000
	Buffalo.....	.0813	.0896
Dubuque.....	River salmon.....	.1208	.1167
	River salmon.....	.1250	.1250
KANSAS.			
Topeka.....	Catfish.....	.1375	.1500
	Catfish.....	.1354	.1500
KENTUCKY.			
Louisville.....	Buffalo.....	.0800	.1000
	Buffalo.....	.0800	.0800
LOUISIANA.			
New Orleans.....	Red snapper.....	.1000	.0950
	Red snapper.....	.1000	.1000
	Red snapper.....	.1000	.1000
MAINE.			
Portland.....	Haddock.....	.0650	.0650
	Haddock.....	.0700	.0658
MARYLAND.			
Baltimore.....	White perch.....	.1125	.1100
	White perch, large.....	.1200	.1150
	Yellow perch.....	.0892	.0900
	Yellow perch.....	.0900	.0900
MASSACHUSETTS.			
Boston.....	Cod or haddock.....	.0658	.0658
	Cod or haddock, medium.....	.0892	.0833
	Haddock.....	.0617	.0650
Fall River.....	Cod steak.....	.1000	.1000
Lynn.....	Haddock.....	.0617	.0592
	Haddock.....	.0600	.0642
Malden.....	Cod.....	.0600	.0600
	Cod.....	.0853	.0883
	Haddock.....	.1000	.0883
Worcester.....	Cod.....	.0917	.0925
	Halibut steak.....	.2475	.2417
	Halibut steak.....	.2358	.2350
MICHIGAN.			
Detroit.....	Lake trout.....	.1092	.1338
	Lake trout.....	.1500	.1500
	Perch.....	.1500	.1500
	Whitefish.....	.1500	.1500
Grand Rapids.....	Whitefish.....	.1508	.1483
	Whitefish.....	.1250	.1592

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

FISH, FRESH, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
MINNESOTA.			
Duluth.....	Trout.....	\$0.1000	\$0.1217
	Trout, medium.....	.1104	.1104
Minneapolis.....	Pickarel.....	.0900	.0933
	Whitefish.....	.0950	.0950
MISSOURI.			
Kansas City.....	Catfish.....	.1313	.1500
St. Louis.....	Carp.....	.1313	.1042
	Lake pike.....	.1354	.1306
	Mackerel.....	.1888	.1888
MONTANA.			
Butte.....	Salmon.....	.1313	.1313
	Salmon.....	.1313	.1313
NEBRASKA.			
Omaha.....	Catfish.....	.1146	.1250
	Catfish.....	.1250	.1250
NEW HAMPSHIRE.			
Manchester.....	Haddock, whole.....	.0608	.0592
	Haddock, whole.....	.0575	.0575
NEW JERSEY.			
Jersey City.....	Cod.....	.1267	.1300
	Cod.....	.1150	.1167
Trenton.....	Cod, sliced.....	.1500	.1500
	Hake, sliced.....	.1000	.1000
	Weakfish, whole.....	.1125	.1125
NEW YORK.			
Albany.....	Cod.....	.0600	.0600
Brooklyn.....	Cod steak.....	.1417	.1575
	Cod steak.....	.1425	.1450
Buffalo.....	Perch.....	.1000	.1053
	Whitefish.....	.1400	.1400
	Yellow pike.....	.1400	.1400
Flushing.....	Cod steak.....	.1425	.1425
	Cod steak.....	.1400	.1400
	Weakfish.....	.1200	.1200
New York (a).....	Cod steak.....	.1150	.1142
	Cod steak.....	.1483	.1517
Rochester.....	Haddock, whole.....	.1000	.0967
Syracuse.....	Cod.....	.1300	.1267
	Cod.....	.1350	.1350
	Halibut.....	.1917	.1933
OHIO.			
Cincinnati.....	Lake salmon.....	.1250	.1250
	Lake salmon.....	.1200	.1200
	Whitefish.....	.1250	.1250
	Whitefish.....	.1250	.1250
	Whitefish.....	.1483	.1500
	Yellow salmon, No. 1.....	.1092	.1033
Cleveland.....	Perch.....	.0867	.0883
	Whitefish.....	.1425	.1442
	Whitefish, frozen during the winter months.....	.1321	.1321
Toledo.....	Whitefish.....	.1442	.1525
	Whitefish.....	.1600	.1600
OREGON.			
Portland.....	Halibut.....	.1000	.1000
	Salmon.....	.1250	.1250
	Salmon.....	.1104	.1104
	Salmon.....	.1125	.1167
PENNSYLVANIA.			
Allegheny.....	Lake salmon.....	.1500	.1500
	Lake Salmon.....	.1500	.1500
Philadelphia.....	Cod, whole.....	.1100	.1117
	Haddock, fresh.....	.0700	.0662
	Halibut, eastern.....	.2417	.2542
	Halibut, western.....	.2042	.2042
Pittsburg.....	Lake salmon.....	.1125	.1146
	Lake salmon.....	.1146	.1250
Seranton.....	Haddock.....	.0767	.0806
	Sea trout.....	.1250	.1250
	Weakfish.....	.1221	.1238
Wilkes-Barre.....	Blue pike.....	.1250	.1250
	Haddock.....	.0867	.0917

(a) Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

FISH, FRESH, PER POUND—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
RHODE ISLAND.			
Providence.....	Haddock.....	\$0.0967	\$0.1000
	Haddock, best cut.....	.1100	.1100
SOUTH CAROLINA.			
Charleston.....	Blackfish.....	.0800	.0800
	Blackfish.....	.0733	.0733
SOUTH DAKOTA.			
Sioux Falls.....	Lakefish.....	.1146	.1125
	Lakefish.....	.1104	.1188
TENNESSEE.			
Memphis.....	Buffalo.....	.1000	.1000
	Buffalo.....	.1000	.1000
	Red snapper.....	.1000	.1000
Nashville.....	Black bass.....	.1500	.1500
	Black bass.....	.1500	.1500
	Red snapper.....	.1000	.1000
	Red snapper.....	.1000	.1000
TEXAS.			
Dallas.....	Trout.....	.1250	.1250
	Trout or redfish.....	.1250	.1250
San Antonio.....	Trout or redfish, cleaned.....	.1021	.1250
	Trout or sheephead.....	.1000	.1000
UTAH.			
Salt Lake City.....	Halibut.....	.1417	.1500
	Salmon.....	.1667	.1750
	Salmon.....	.1583	.1583
VIRGINIA.			
Norfolk.....	Sea trout.....	.1083	.1083
	Sea trout.....	.1250	.1250
Richmond.....	Rock or striped bass.....	.1381	.1713
	Rock or striped bass.....	.1597	.1633
	White perch.....	.0900	.1113
	White perch.....	.1250	.1250
WASHINGTON.			
Seattle.....	Halibut.....	.0783	.0783
	Salmon.....	.1038	.1033
	Salmon.....	.0783	.0894
Tacoma.....	Salmon.....	.1167	.1167
	Salmon.....	.1250	.1375
WEST VIRGINIA.			
Wheeling.....	Sager or jackfish.....	.1042	.1250
	Sager or jackfish.....	.1021	.1104
WISCONSIN.			
Milwaukee.....	Lake trout.....	.1200	.1200
	Lake trout.....	.1250	.1250

FISH, SALT, PER POUND.

ALABAMA.			
Birmingham.....	Cod, boneless.....	\$0.1500	\$0.1500
	Mackerel, No. 1, small.....	.1500	.1500
Montgomery.....	Mackerel, No. 2.....	.1750	.1767
	Mackerel, No. 3.....	.1000	.1000
ARKANSAS.			
Little Rock.....	Cod, boneless.....	.1500	.1500
	Mackerel, Sea King.....	.1250	.1250
CALIFORNIA.			
Los Angeles.....	Cod.....	.0833	.0833
	Cod.....	.0833	.0833
San Francisco.....	Cod.....	.1500	.1750
	Cod.....	.1000	.1000
	Mackerel, medium.....	.1700	.1700
COLORADO.			
Denver.....	Mackerel.....	.2000	.2000
	Mackerel.....	.1481	.1481

BULLETIN OF THE BUREAU OF LABOR

RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

FISH, MEAT, AND POULTRY—Continued.

City.	Description.	Average price.	
		1904.	1905.
NEW YORK.	Cod, whole.....	\$0.1000	\$0.1000
	Cod, whole.....	.1167	.1200
	Cod, whole.....	.1225	.1200
	Mackerel, No. 1.....	.2000	.2000
	Mackerel, No. 1.....	.1642	.1625
NEW YORK.	Cod, medium.....	.1000	.1000
	Cod, medium.....	.0800	.0800
NEW YORK.	Cod.....	.1000	.1167
	Cod, cheap grade.....	.0800	.0867
NEW YORK.	Cod.....	.1000	.1000
	Cod.....	.1000	.1000
	Cod, sold in 1-pound packages.....	.1000	.1000
	Mackerel, No. 2.....	.1500	.1500
	Mackerel, No. 2.....	.1231	.1231
	Mackerel, No. 3.....	.1000	.1000
NEW YORK.	Mackerel, No. 1.....	.1500	.1533
	Mackerel, No. 2.....	.1242	.1258
NEW YORK.	Cod, good.....	.1000	.1000
	Cod, medium.....	.1000	.1200
	Cod, medium.....	.1000	.1000
	Mackerel, No. 1, medium.....	.1250	.1500
	Mackerel, No. 1, medium.....	.1525	.1575
	Mackerel, No. 1, medium.....	.1600	.1600
	Cod.....	.1000	.1000
NEW YORK.	Cod, medium, sold in 1 or 2 pound bricks.....	.1000	.1000
	Mackerel, No. 2.....	.1200	.1200
NEW YORK.	Cod, boneless.....	.1500	.1500
	Cod, boneless.....	.1250	.1250
	Cod, boneless, best.....	.1500	.1500
	Cod, boneless, best.....	.1500	.1500
NEW YORK.	Mackerel, extra.....	.2000	.2000
	Mackerel, medium.....	.1500	.1500
	Cod.....	.1250	.1250
	Mackerel, Norway, No. 1.....	.2000	.2000
NEW YORK.	Mackerel, No. 1.....	.1250	.1500
	Mackerel, No. 1.....	.1306	.1500
NEW YORK.	Mackerel, No. 1.....	.1806	.2188
	Mackerel, No. 2.....	.1500	.1500
NEW YORK.	Cod, boneless.....	.0846	.0750
	Cod, boneless.....	.0800	.0800
	Mackerel, Boston Beauty.....	.1000	.1000
NEW YORK.	Cod, whole.....	.0983	.0850
	Cod, whole.....	.0800	.0800
NEW YORK.	Cod, medium.....	.1000	.1000
	Cod, pure, boneless.....	.1000	.1000
	Flake.....	.0600	.0617
NEW YORK.	Cod, boneless, in boxes.....	.1500	.1500
	Cod, whole.....	.0779	.0800
	Mackerel, No. 1.....	.1400	.1400
	Mackerel, No. 2.....	.1500	.1500
	Mackerel.....	.1500	.1500
	Cod, boneless.....	.1400	.1400
	Cod, Canadian, boneless, sold in 2-pound lots.....	.1250	.1250
	Cod.....	.0875	.0883
	Cod, boneless, No. 1.....	.1008	.1000
	Cod, whole.....	.0808	.0800

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

FISH, SALT, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
MASSACHUSETTS—concluded.			
Worcester.....	Cod, whole.....	\$0.1000	\$0.1000
	Cod, whole.....	.0975	.1000
	Mackerel, No. 1.....	.1525	.1500
	Mackerel, No. 2.....	.1500	.1500
	Mackerel, No. 2.....	.1200	.1200
MICHIGAN.			
Detroit.....	Cod, boneless.....	.1250	.1458
	Cod, good, sold in 1-pound tablets.....	.1000	.1000
	Mackerel, No. 2.....	.1500	.1500
Grand Rapids.....	Mackerel, No. 1.....	.1500	.1500
	Mackerel, No. 1.....	.2000	.2000
MINNESOTA.			
Duluth.....	Cod, medium, sold in 1-pound packages.....	.1188	.1208
	Cod, No. 1.....	.1250	.1250
	Mackerel, best.....	.1917	.1933
Minneapolis.....	Cod.....	.0800	.0875
	Mackerel, medium size.....	.1133	.1150
St. Paul.....	Cod, Lion, White Rose, or equivalent grade.....	.1000	.1000
	Cod, medium.....	.0800	.1000
MISSOURI.			
Kansas City.....	Mackerel, No. 1.....	.1500	.1500
	Mackerel, No. 2.....	.1250	.1250
St. Louis.....	Cod, sold in bricks.....	.1083	.1050
	Mackerel, No. 2.....	.1000	.1000
	Mackerel, No. 2.....	.1000	.1000
	Mackerel, No. 2.....	.1188	.1258
MONTANA.			
Butte.....	Mackerel.....	.1250	.1250
	Mackerel, medium.....	.1250	.1250
NEBRASKA.			
Omaha.....	Mackerel.....	.1292	.1396
	Mackerel.....	.1396	.1417
NEW HAMPSHIRE.			
Manchester.....	Cod, boneless.....	.1400	.1400
	Cod, whole.....	.0783	.0975
NEW JERSEY.			
Jersey City.....	Cod.....	.1000	.1092
	Cod, boneless.....	.1200	.1200
Trenton.....	Cod, boneless, best.....	.1250	.1250
	Cod, sold in bricks.....	.1000	.1000
NEW YORK.			
Albany.....	Cod.....	.1000	.1025
	Cod.....	.1000	.1000
	Cod, No. 1.....	.1467	.1400
Brooklyn.....	Cod, sold in bricks.....	.1200	.1233
	Cod, whole.....	.1300	.1333
Buffalo.....	Cod, Perfection, sold in 1-pound bricks.....	.0800	.0800
	Cod, Walrus brand.....	.1200	.1200
Flushing.....	Cod, whole.....	.1000	.1017
	Mackerel, No. 1.....	.1900	.2000
New York (a).....	Cod, boneless, sold in 1-pound bricks.....	.0900	.0933
	Cod, boneless, sold in 1-pound bricks.....	.1200	.1500
	Cod, headless, Ocean Gem, sold in 1-pound bricks.....	.0900	.0975
	Cod, whole.....	.1100	.1258
	Mackerel, No. 1.....	.2000	.2000
	Mackerel, No. 1.....	.1700	.1600
	Salmon, red, Alaska, pickled.....	.1000	.1000
Rochester.....	Cod, boneless, sold in 1-pound bricks.....	.1200	.1200
	Cod, sold in 1-pound bricks.....	.1308	.1333
	Mackerel, bloater, No. 1 prime.....	.1500	.1500
Syracuse.....	Mackerel, No. 1.....	.2000	.2000
OHIO.			
Cincinnati.....	Cod, headless, whole.....	.1000	.1000
	Mackerel, No. 2.....	.1500	.1500
	Mackerel, No. 2.....	.1500	.1500
Cleveland.....	Cod.....	.1000	.1000
	Cod, best.....	.1275	.1400
	Mackerel, No. 2.....	.1500	.1500
Toledo.....	Mackerel, choice.....	.1000	.1000
	Mackerel, No. 2.....	.1250	.1250

(a) Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

FISH, SALT, PER POUND—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
OREGON.			
Portland.....	Mackerel.....	\$0.1500	\$0.1500
	Mackerel, medium.....	.1500	.1500
	Mackerel, No. 2.....	.1500	.1500
PENNSYLVANIA.			
Allegheny.....	Mackerel, No. 2.....	.1500	.1500
	Mackerel, No. 2.....	.1500	.1500
Philadelphia.....	Cod.....	.0800	.0842
	Cod, boneless.....	.1000	.1000
	Cod, boneless.....	.0900	.0900
	Mackerel, medium.....	.2000	.2000
	Mackerel, No. 2.....	.1800	.1800
Pittsburg.....	Cod.....	.0992	.1000
	Mackerel, No. 2.....	.1492	.1500
Seranton.....	Cod.....	.1200	.1200
	Cod.....	.1250	.1250
Wilkes-Barre.....	Cod.....	.1250	.1375
	Mackerel, No. 1.....	.1517	.1783
	Mackerel, No. 3.....	.1500	.1667
RHODE ISLAND.			
Providence.....	Cod.....	.0750	.0708
	Cod, boneless, in boxes.....	.1500	.1500
SOUTH CAROLINA.			
Charleston.....	Cod.....	.0800	.0800
	Mackerel, No. 1.....	.1250	.1375
SOUTH DAKOTA.			
Sioux Falls.....	Mackerel, medium.....	.1500	.1500
	Mackerel, No. 2.....	.1333	.1500
TENNESSEE.			
Memphis.....	Mackerel, No. 1.....	.1500	.1500
	Mackerel, No. 1.....	.1000	.1000
Nashville.....	Mackerel, No. 1.....	.1000	.1000
	Mackerel, No. 1.....	.1250	.1250
TEXAS.			
Dallas.....	Cod, boneless.....	.1500	.1250
	Mackerel, No. 1.....	.1500	.1500
San Antonio.....	Cod.....	.1000	.1000
	Mackerel, No. 1.....	.1500	.1500
UTAH.			
Salt Lake City.....	Mackerel, medium.....	.2000	.2000
	Mackerel, medium.....	.1500	.1500
VIRGINIA.			
Norfolk.....	Mackerel, No. 2.....	.1450	.1450
	Mackerel, No. 2.....	.1250	.1250
Richmond.....	Cod.....	.1000	.1000
	Mackerel, No. 2.....	.1500	.1417
WASHINGTON.			
Seattle.....	Mackerel, No. 1, medium.....	.1500	.1500
	Mackerel, No. 3.....	.1500	.1500
Tacoma.....	Mackerel, Norway, No. 1.....	.2000	.2000
	Mackerel, Norway, No. 1.....	.2500	.2500
WEST VIRGINIA.			
Wheeling.....	Mackerel, No. 2, medium.....	.1000	.1000
	Mackerel, No. 2, medium.....	.1250	.1250
WISCONSIN.			
Milwaukee.....	Cod, headless.....	.1000	.1000
	Cod, headless.....	.0875	.0800

FLOUR, WHEAT, PER ONE-EIGHTH BARREL BAG.

ALABAMA.			
Birmingham.....	Champion, patent, winter.....	\$0.8458	\$0.8375
	Patent, winter medium.....	.8875	.8833
	Pill-bury's Best, patent.....	.8458	.8667
Montgomery.....	Ballard's Obelisk.....	.8500	.8500
	Ballard's Obelisk or Capitola, medium.....	.8500	.8500
	Dictator, patent, winter.....	.8167	.7500

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

FLOUR, WHEAT, PER ONE-EIGHTH BARREL BAG—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
ARKANSAS.			
Little Rock.....	Angel Food, patent, winter.....	\$0.8500	\$0.8167
	Success, patent, winter.....	.7792	.8292
	Superior, patent, winter.....	.7917	.8708
CALIFORNIA.			
Los Angeles.....	Capital, family.....	.7875	.7500
	Capital, family.....	.7308	.7580
	Capital, family.....	.7333	.7500
San Francisco.....	Golden Gate or Sperry's Roller, family ..	.6542	.6667
	Sperry's, family.....	.6500	.6500
	Sperry's Roller, family.....	.6583	.6875
	Sperry's Roller, family.....	.6250	.7000
COLORADO.			
Denver.....	Hungarian, patent, family.....	.6667	.6438
	Longmont, special, family, winter, sold by the one-sixteenth barrel bag.	.5500	.5771
	Pride of the West, family.....	.6167	.6833
CONNECTICUT.			
New Haven.....	Haxall's.....	.9208	.9083
	Pillsbury's Best, winter.....	.8625	.8667
	Washburn's, family.....	.9125	.8917
DELAWARE.			
Wilmington.....	Patent, spring, best.....	.7667	.8167
	Pillsbury's Best.....	.8167	.7917
	Pillsbury's Best, sold by the one-sixteenth barrel bag.	.9000	.8550
DISTRICT OF COLUMBIA.			
Washington.....	Ceres, family.....	.8917	.9300
	Ceres, family.....	.8917	.9558
	Ceres, family, best.....	.9042	.9683
FLORIDA.			
Jacksonville.....	De Soto.....	.9333	.7968
	De Soto.....	.7000	.8875
	Majestic, winter.....	.8625	.8458
GEORGIA.			
Atlanta.....	Patent, best.....	.8708	.8667
	Winter, medium.....	.7708	.7500
	Winter, medium.....	.8458	.8500
ILLINOIS.			
Chicago.....	Pillsbury's Best.....	.7500	.7792
	Pillsbury's Best.....	.7750	.7408
	Pillsbury's Best.....	.7417	.7317
	Pillsbury's Best.....	.7458	.7458
	Pillsbury's Best.....	.7708	.8042
	Pillsbury's Best.....	.7458	.7542
Peoria.....	Pillsbury's Best, winter.....	.8042	.7917
	Vienna, patent, winter.....	.7792	.8000
	Vienna, patent, winter.....	.8083	.7750
	Vienna, patent, winter.....	.8167	.7417
INDIANA.			
Indianapolis.....	Diadem, patent.....	.7833	.7750
	Patent, good.....	.8250	.7833
	Straight, family.....	.7000	.6417
Terre Haute.....	Gold Medal.....	.9125	.8667
	Gold Medal, patent.....	.8083	.8000
	Kidder Mills, patent, straight.....	.7083	.6750
IOWA.			
Des Moines.....	Chase Bros., extra, spring.....	.8250	.8458
	Pillsbury's Best, spring.....	.8250	.7750
	Pillsbury's, spring.....	.7625	.7500
Dubuque.....	Minnesota, patent, spring, best.....	.8417	.7542
	Pillsbury's, medium, spring.....	.8208	.7375
	Pillsbury's, medium, spring.....	.8042	.8250
KANSAS.			
Topeka.....	Family, winter.....	.7167	.6292
	Family, winter.....	.6750	.6000
	Patent, winter, second grade.....	.7083	.6292
KENTUCKY.			
Louisville.....	High grade.....	.7583	.7667
	Patent, medium.....	.8917	.8083
	Tip Top, winter.....	.8000	.7750

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

FLOUR, WHEAT, PER ONE-EIGHTH BARREL BAG—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
LOUISIANA.			
New Orleans.....	Angel Food, patent.....	\$0.8000	\$0.7625
	Angel Food, winter.....	.8000	.7958
	Obelisk.....	.8833	.7917
	Patent.....	.9583	.9167
MAINE.			
Portland.....	Patent.....	.8917	.8958
	Pillsbury's, medium.....	.9250	.9583
	Pillsbury's, patent, spring.....	.8625	.9125
MARYLAND.			
Baltimore.....	Jack Frost.....	.7917	.8683
	Patent Process.....	.8458	.8708
	Pillsbury's Best.....	.7542	.8408
	Superlative, patent.....	.7992	.7900
MASSACHUSETTS.			
Boston.....	Golden Gate, Minnesota, patent.....	.7750	.7933
	Golden Rose, patent.....	.7808	.8025
	Pillsbury's XXXX, patent.....	.8875	.9375
	Smith's brand, family.....	.8708	.8417
Fall River.....	Benton's, best, family.....	.7767	.7275
	King Arthur, family.....	.8833	.9042
	Pillsbury's Best, family.....	.8767	.8717
Lynn.....	Haxall's Cream Loaf, patent.....	.7667	.7892
	Pillsbury's Best, patent.....	.8333	.8433
	Pillsbury's Best, patent.....	.8375	.8167
Malden.....	Golden Gate, Minnesota, patent.....	.7750	.7933
	Haxall's, patent.....	.8858	.9042
	Highland Beauty.....	.8792	.9042
Worcester.....	Gold Medal, family.....	.9250	.9125
	Pillsbury's Best, family.....	.8667	.9000
	Swansdown, family, best.....	.9625	.9167
MICHIGAN.			
Detroit.....	Gold Medal, patent.....	.7683	.7733
	Henkel's Commercial.....	.7042	.6750
	Henkel's Commercial, family.....	.7100	.6675
	Stott's, fancy, or Henkel's Commercial, family.....	.7200	.6775
	Stott's or Henkel's, family.....	.6767	.6608
Grand Rapids.....	Crescent.....	.7800	.8042
	Lily White.....	.7625	.7792
	Lily White.....	.7842	.7333
MINNESOTA.			
Duluth.....	Pillsbury's Best, or equivalent grade, patent.....	.8458	.8542
	Pillsbury's Best, patent, spring.....	.8042	.8292
	Universal, patent, spring.....	.8583	.8417
Minneapolis.....	Minnesota, patent, best.....	.7033	.7833
	Minnesota, patent, best.....	.7608	.7675
	Minnesota, patent.....	.7725	.7583
	Minnesota, patent.....	.6208	.7125
St. Paul.....	Pillsbury's Best, or equivalent grade, patent.....	.8292	.8333
	Snowdrift, family.....	.7167	.6583
	Straight, best.....	.7150	.7383
MISSOURI.			
Kansas City.....	Kansas, family.....	.6167	.6083
	Kansas, family.....	.6250	.6125
	Kansas, family, winter.....	.6833	.6375
St. Louis.....	Family.....	.7000	.7583
	Royal, patent, winter.....	.7542	.7125
	Royal, patent, winter, family.....	.6500	.6792
	Standard, patent, winter, family.....	.5417	.6458
MONTANA.			
Butte.....	Montana.....	.8583	.9292
	Montana, family.....	.8583	.9333
	Montana, family.....	.9125	.9417
NEBRASKA.			
Omaha.....	Patent, winter.....	.7667	.6875
	Patent, winter.....	.7583	.6917
	Patent, winter.....	.7667	.7042
NEW HAMPSHIRE.			
Manchester.....	Patent, spring.....	.8567	.8542
	Pillsbury's Best.....	.9250	.8417
	Red A, winter.....	.7750	.8208

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.
 FLOUR, WHEAT, PER ONE-EIGHTH BARREL BAG—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
NEW JERSEY.			
Jersey City.....	Gold Medal, Minnesota, patent.....	\$0.7750	\$0.7992
	Hecker's, patent.....	.8100	.8775
	Hecker's, patent.....	.7958	.8567
Trenton.....	Family, good.....	.7800	.8333
	Patent, winter.....	.8425	.8958
NEW YORK.			
Albany.....	Minnesota, best, family.....	.8742	.8833
	Minnesota, family.....	.8250	.8500
	Minnesota, family.....	.8458	.8792
Brooklyn.....	Crusade, patent.....	.7958	.7958
	Hecker's, patent.....	.8325	.7817
	Pillsbury's Best, patent.....	.8275	.8117
Buffalo.....	Ceresota, family.....	.7433	.7725
	Thornton and Chester's, patent.....	.7808	.7825
	Thornton and Chester's, patent.....	.8000	.8267
	Thornton and Chester's, patent.....	.8017	.8042
	Urban's Best, patent.....	.7167	.7292
Flushing.....	Pillsbury's Best, patent.....	.9008	.9175
	Pillsbury's Best, XXXX, patent.....	.8533	.8892
	Pillsbury's XXXX, patent, spring.....	.8392	.8633
New York(a).....	Head of the List, patent, winter.....	.9417	.9750
	Hecker's, patent, winter.....	.8333	.8042
	Hecker's Superlative, patent.....	.8167	.8042
	Hecker's Superlative, patent, fancy, family.....	.8542	.7667
	Pillsbury's Best, XXX, patent, winter..	.6542	.7917
Rochester.....	Big B, patent.....	.8333	.8750
	Splendor, patent.....	.8567	.8383
	Yosemite, patent.....	.8542	.8625
Syracuse.....	Amos, or Big J, patent.....	.8375	.8308
	Daisy, patent.....	.7533	.6708
	Sleepy Eye, Minnesota, patent, spring...	.8433	.8917
OHIO.			
Cincinnati.....	Gold Medal.....	.7833	.7500
	Pillsbury's Best.....	.7833	.8167
	Pillsbury's, straight spring.....	.8458	.8917
	The Banner, patent, winter.....	.7125	.7000
Cleveland.....	Patent, spring.....	.6875	.7000
	Patent, spring.....	.8133	.8167
	Patent, winter, sold by the one-fourth barrel bag.....	.7192	.6983
	Prospect, winter.....	.6908	.6567
Toledo.....	Best, family.....	.7542	.7042
	Camp's Pansy, patent.....	.8542	.8292
	Snow Ball.....	.7183	.6417
OREGON.			
Portland.....	Olympia, family.....	.6125	.6291
	Oregon, family.....	.6125	.6292
	Valley, family.....	.6125	.6291
PENNSYLVANIA.			
Allegheny.....	Minnehaha, patent.....	.7600	.7425
	Minnehaha, patent.....	.7942	.8008
	Pillsbury's, patent.....	.7875	.8367
Philadelphia.....	Ceresota, 1904, and Quaker City, 1905, patent.....	.7283	.7167
	Gold Medal, Minnesota.....	.8717	.8708
	Gold Medal, patent.....	.8625	.8083
	Hecker's Highland Chief, patent, best....	.8625	.8958
	Minnesota, patent.....	.7817	.8533
Pittsburg.....	Family, best.....	.7917	.8475
	Minnehaha, patent.....	.7150	.7125
	Pillsbury's Best.....	.8833	.8375
Scranton.....	Coursen's Gem, patent, first grade.....	.9333	.8958
	Pillsbury's Best, patent.....	.9042	.9458
	Silver Leaf, winter.....	.7813	.7667
Wilkes-Barre.....	Meixell Bros., patent.....	.8167	.8292
	Pillsbury's, choice.....	.8583	.9083
	Purity, patent.....	.8208	.8000
RHODE ISLAND.			
Providence.....	Haxall's, best, family.....	.8958	.8708
	Haxall's, best, family.....	.8750	.8958
	Haxall's, family.....	.8875	.8917

a Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

FLOUR, WHEAT, PER ONE-EIGHTH BARREL BAG—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
SOUTH CAROLINA.			
Charleston.....	Hartter's No. 1, winter.....	\$0.9333	\$0.8750
	Obelisk, winter.....	.8067	.7875
	Roxane, winter.....	.7333	.7917
SOUTH DAKOTA.			
Sioux Falls.....	Patent, winter.....	.7542	.6667
	Patent, winter.....	.7667	.7333
	Patent, winter.....	.7542	.6917
TENNESSEE.			
Memphis.....	Belle of Ava, patent, best.....	.8500	.6958
	Omega.....	.9000	.8417
	Omega, patent.....	.8750	.8708
Nashville.....	Alister, winter.....	.7250	.7000
	High grade, winter.....	.7667	.7500
	Medium.....	.7125	.7167
TEXAS.			
Dallas.....	Blue Bonnet, patent.....	.6458	.7583
	Blue Bonnet, winter.....	.7125	.7500
	Blue Bonnet, winter.....	.7125	.7208
San Antonio.....	Pioneer, patent, winter.....	.7500	.7417
	Pioneer, patent, winter.....	.7042	.6833
	Pioneer, patent, winter.....	.7500	.7417
UTAH.			
Salt Lake City.....	Inter Mountain, straight, family, sold by the one-fourth barrel bag.....	.6750	.6167
	Inter Mountain, straight, winter.....	.6750	.6083
	Inter Mountain, straight, winter, family.....	.6750	.6167
VIRGINIA.			
Norfolk.....	Henry Clay, winter, sold by the one-sixteenth barrel bag.....	.8650	.8100
	Obelisk, patent, sold by the one-sixteenth barrel bag.....	.8250	.8000
	Obelisk, patent, sold by the one-sixteenth barrel bag.....	.8250	.8000
Richmond.....	Dunlop's, patent.....	.7750	.8000
	Motley's Selling Bell, family.....	.7750	.7958
	Obelisk.....	.7233	.7500
WASHINGTON.			
Seattle.....	Centennial, best, sold by the one-fourth barrel bag.....	.6375	.6583
	Centennial, sold by the one-fourth barrel bag.....	.6375	.6583
	Split Silk.....	.6292	.6208
Tacoma.....	Olympic, patent.....	.7042	.7292
	Olympic, patent, sold by the one-fourth barrel bag.....	.6521	.6488
	Olympic, patent, sold by the one-fourth barrel bag.....	.6396	.6563
WEST VIRGINIA.			
Wheeling.....	Ceresota.....	.8125	.8125
	Ceresota.....	.8167	.8083
	Standard brands.....	.6950	.7108
WISCONSIN.			
Milwaukee.....	Big Jo, winter.....	.7150	.7733
	Minnesota, patent, sold by the barrel.....	.7786	.8802
	Snow Flake, patent, winter.....	.6792	.7417

LARD, PER POUND.

ALABAMA.			
Birmingham.....	Pure leaf, best.....	\$0.1250	\$0.1250
	Pure leaf, bulk.....	.1250	.1250
Montgomery.....	Leaf, good.....	.0967	.1025
	Pure leaf.....	.1000	.1000
ARKANSAS.			
Little Rock.....	Pure leaf, bulk.....	.1250	.1217
	Pure leaf, bulk.....	.1250	.1250

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

LARD, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
CALIFORNIA.			
Los Angeles.....	Pure leaf.....	\$0.1500	\$0.1500
	Pure leaf.....	.1250	.1250
San Francisco.....	Pure leaf.....	.1250	.1250
	Pure leaf.....	.1000	.1021
	Pure leaf.....	.1250	.1250
	Pure leaf, Swift's, sold in 3-pound cans...	.1242	.1250
COLORADO.			
Denver.....	Pure leaf.....	.1250	.1250
	Pure leaf.....	.1000	.1188
CONNECTICUT.			
New Haven.....	Pure leaf.....	.1200	.1200
	Pure leaf, sold in 3-pound cans.....	.1358	.1425
DELAWARE.			
Wilmington.....	Best, bulk.....	.1200	.1200
	Pure leaf, bulk.....	.1400	.1400
DISTRICT OF COLUMBIA.			
Washington.....	Pure leaf, bulk.....	.1300	.1217
	Pure leaf, bulk.....	.1242	.1200
	Pure leaf, bulk.....	.1300	.1258
FLORIDA.			
Jacksonville.....	Pure leaf.....	.1150	.1200
	Pure leaf.....	.1200	.1200
	Pure leaf.....	.1000	.1083
	Pure leaf, bulk.....	.1250	.1250
GEORGIA.			
Atlanta.....	Pure leaf, best.....	.0938	.0992
	Pure leaf, bulk.....	.1000	.1000
ILLINOIS.			
Chicago.....	Leaf, bulk.....	.0900	.0900
	Pure leaf.....	.1042	.1008
	Pure leaf, bulk.....	.1133	.1150
	Pure leaf, bulk.....	.1117	.1033
	Pure leaf, refined.....	.0975	.0879
Peoria.....	Pure leaf, bulk.....	.1292	.1304
	Pure leaf, bulk.....	.1225	.1383
	Pure leaf, bulk.....	.1250	.1250
INDIANA.			
Indianapolis.....	Leaf, bulk.....	.1188	.1229
	Leaf, bulk.....	.1000	.1000
Terre Haute.....	Leaf, bulk.....	.1250	.1250
	Pure leaf.....	.1146	.1000
IOWA.			
Des Moines.....	Pure leaf.....	.1250	.1213
	Pure leaf.....	.1000	.1000
Dubuque.....	Leaf, best.....	.1188	.1167
	Pure leaf.....	.1250	.1250
KANSAS.			
Topeka.....	Pure leaf.....	.1213	.1163
	Pure leaf.....	.1188	.1000
KENTUCKY.			
Louisville.....	Pure leaf, bulk, sold in \$1 lots.....	.1111	.1017
	Pure leaf, neutral, sold in cans.....	.1600	.1600
LOUISIANA.			
New Orleans.....	Pure leaf, bulk.....	.0900	.1008
	Pure leaf, sold in 5-pound cans.....	.1000	.1050
	Swift's Silver Leaf.....	.1025	.1000
MAINE.			
Portland.....	Leaf, sold in cans.....	.1275	.1225
	Pure leaf, sold in cans.....	.1233	.1246
MARYLAND.			
Baltimore.....	Pure leaf.....	.0963	.0883
	Pure leaf.....	.0917	.1000
	Pure leaf, bulk.....	.1000	.0983
	Pure leaf, bulk.....	.1075	.1000
MASSACHUSETTS.			
Boston.....	Pure leaf, bulk.....	.1083	.1067
	Pure leaf, sold in 3-pound cans.....	.0997	.1008
	Pure leaf, sold in 3-pound cans.....	.1058	.1078

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

LARD, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
MASSACHUSETTS—concluded.			
Fall River.....	Pure leaf, bulk.....	\$0.1017	\$0.1000
	Pure leaf, bulk.....	.1008	.1000
Lynn.....	Pure leaf, bulk.....	.1000	.1000
	Pure leaf, bulk.....	.1083	.1067
Malden.....	Pure leaf, bulk.....	.1075	.1067
	Pure leaf, sold in 3-pound cans.....	.0997	.1000
Worcester.....	Pure leaf, bulk.....	.1200	.1200
	Pure leaf, bulk.....	.1250	.1250
MICHIGAN.			
Detroit.....	Pure leaf.....	.1117	.1100
	Pure leaf.....	.1217	.1200
Grand Rapids.....	Pure leaf, kettle rendered.....	.1117	.1100
	Pure leaf, kettle rendered.....	.1125	.1100
	Pure leaf, kettle rendered.....	.1200	.1050
	Pure leaf, kettle rendered.....	.1167	.1208
MINNESOTA.			
Duluth.....	Pure leaf, bulk.....	.1000	.1000
	Pure leaf, bulk.....	.1000	.1000
Minneapolis.....	Pure leaf.....	.1000	.1000
	Pure leaf.....	.1125	.1250
	Pure leaf, bulk.....	.1200	.1167
	Pure, sold in 3-pound cans.....	.1058	.1100
St. Paul.....	Pure leaf.....	.1000	.1000
	Pure leaf, bulk.....	.1000	.1083
MISSOURI.			
Kansas City.....	Pure leaf.....	.1008	.1025
	Pure leaf.....	.1017	.1050
St. Louis.....	Pure leaf, bulk.....	.1188	.1000
	Pure leaf, bulk.....	.1254	.1000
	Pure leaf, bulk.....	.1000	.1000
MONTANA.			
Butte.....	Pure leaf.....	.1271	.1250
	Pure leaf.....	.1292	.1058
NEBRASKA.			
Omaha.....	Pure leaf.....	.1063	.1000
	Pure leaf.....	.0917	.1000
NEW HAMPSHIRE.			
Manchester.....	Pure leaf, sold in cans.....	.1217	.1242
	Pure leaf, sold in cans.....	.1217	.1175
NEW JERSEY.			
Jersey City.....	Pure leaf.....	.1000	.1025
	Pure leaf, bulk.....	.1000	.1017
Trenton.....	Pure leaf, best, sold in 3 and 5 pound cans.....	.1333	.1200
	Pure leaf, bulk.....	.1200	.1200
	Pure leaf, bulk.....	.1275	.1254
NEW YORK.			
Albany.....	Pure leaf.....	.1000	.1183
	Pure leaf, sold in 3 and 5 pound cans.....	.1500	.1317
Brooklyn.....	Pure leaf, bulk.....	.1500	.1408
	Pure leaf, bulk.....	.1333	.1300
	Pure leaf, bulk.....	.1042	.1142
Buffalo.....	Pure leaf, bulk.....	.1000	.1000
	Pure leaf, bulk.....	.1217	.1033
	Pure leaf, bulk.....	.1000	.1033
	Pure leaf, bulk.....	.1108	.1000
Flushing.....	Pure leaf, bulk.....	.1200	.1200
	Pure leaf, sold in 3-pound cans.....	.1167	.1167
New York (a).....	Pure leaf, bulk.....	.1129	.1200
	Pure leaf, bulk.....	.1500	.1500
	Pure leaf, bulk.....	.1200	.1200
	Pure leaf, sold in 3-pound cans.....	.1293	.1300
	Pure leaf, sold in 5-pound cans.....	.1500	.1500
Rochester.....	Kettle rendered, bulk.....	.1033	.1100
	Pure leaf.....	.1258	.1100
	Pure leaf, bulk.....	.0817	.0867
	Pure leaf, bulk.....	.0933	.0668
Syracuse.....	Pure leaf, bulk.....	.1200	.1200
	Pure leaf, bulk.....	.1200	.1200

(a) Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

LARD, PER POUND—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
OHIO.			
Cincinnati.....	Pure leaf.....	\$0.1000	\$0.1000
	Pure leaf.....	.0900	.1000
	Pure leaf.....	.0889	.0900
Cleveland.....	Pure leaf.....	.1033	.1033
	Pure leaf.....	.1075	.1067
	Pure leaf.....	.1100	.1100
	Pure leaf, sold in 3-pound cans.....	.1233	.1230
	Pure leaf, Swift's Silver Leaf.....	.0942	.0967
Toledo.....	Leaf, bulk.....	.1033	.1067
	Pure leaf, kettle rendered.....	.1133	.1250
OREGON.			
Portland.....	Pure leaf.....	.1000	.1000
	Pure leaf.....	.1250	.1250
PENNSYLVANIA.			
Allegheny.....	Leaf.....	.1458	.1375
	Pure leaf.....	.1250	.1250
Philadelphia.....	Pure leaf, bulk.....	.1333	.1225
	Pure leaf, bulk.....	.1117	.1200
	Pure leaf, bulk.....	.1158	.1200
	Pure leaf, bulk.....	.1000	.1033
	Pure leaf, bulk.....	.1100	.1150
Pittsburg.....	Pure leaf.....	.1375	.1250
	Pure leaf.....	.1300	.1300
Scranton.....	Leaf, bulk.....	.1213	.1063
	Pure leaf.....	.1192	.1000
Wilkes-Barre.....	Pure leaf, bulk.....	.1200	.1200
	Pure leaf, bulk.....	.1250	.1250
RHODE ISLAND.			
Providence.....	Pure leaf, bulk.....	.1200	.1200
	Pure leaf, bulk.....	.1033	.1058
	Pure leaf, bulk.....	.1317	.1383
SOUTH CAROLINA.			
Charleston.....	Pure leaf.....	.1017	.1017
	Pure leaf, bulk.....	.1000	.1000
SOUTH DAKOTA.			
Sioux Falls.....	Pure leaf.....	.1000	.1033
	Pure leaf.....	.1000	.1000
TENNESSEE.			
Memphis.....	Pure leaf.....	.1108	.1079
	Pure leaf, sold in 5-pound cans.....	.0933	.0892
Nashville.....	Pure leaf, bulk.....	.1067	.0885
	Pure leaf, bulk.....	.1250	.1250
TEXAS.			
Dallas.....	Pure leaf.....	.0996	.1058
	Pure leaf, bulk.....	.1250	.1250
San Antonio.....	Pure leaf, bulk.....	.1000	.1000
	Pure leaf, bulk.....	.1250	.1250
UTAH.			
Salt Lake City.....	Pure leaf, bulk.....	.1500	.1500
	Pure leaf, bulk.....	.1225	.1300
VIRGINIA.			
Norfolk.....	Pure leaf.....	.1200	.1200
	Pure leaf, bulk.....	.1025	.1000
Richmond.....	Pure leaf.....	.1158	.1017
	Pure leaf.....	.1117	.1017
	Pure leaf.....	.1108	.1033
WASHINGTON.			
Seattle.....	Pure leaf, sold in 5-pound cans.....	.1200	.1200
	Pure leaf, sold in 5-pound cans.....	.1300	.1300
	Pure leaf, sold in 3, 5, and 10 pound cans.....	.1250	.1300
	Pure leaf, sold in 3, 5, 10, and 20 pound cans.....	.1250	.1208
Tacoma.....	Pure leaf, sold in 3-pound cans.....	.1347	.1333
	Pure leaf, sold in 5-pound cans.....	.1400	.1400
WEST VIRGINIA.			
Wheeling.....	Pure leaf, bulk.....	.1058	.1042
	Pure leaf, bulk.....	.1000	.1000
WISCONSIN.			
Milwaukee.....	Pure leaf.....	.1200	.1200
	Pure leaf.....	.0992	.1050
	Pure leaf, Armour's.....	.0942	.0992

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

MILK, FRESH, UNSKIMMED, PER QUART.

State and locality.	Description.	Average price.	
		1904.	1905.
ALABAMA.			
Birmingham.....	Delivered.....	\$0.0800	\$0.0800
	Delivered.....	.0800	.0800
Montgomery.....	Delivered.....	.0800	.0800
	Delivered.....	.0625	.0681
	Delivered, sold by ticket, 32 pints for \$1, Jan., 1904, to Aug., 1905; 24 pints for \$1, Sept. to Dec., 1905.	.0625	.0694
	Delivered, sold by ticket, 32 pints for \$1, Jan., 1904, to Sept., 1905; 24 pints for \$1, Oct. to Dec., 1905.	.0625	.0677
ARKANSAS.			
Little Rock.....	Delivered, 12 tickets sold for \$1.....	.0833	.0833
	Delivered, 14 tickets sold for \$1.....	.0714	.0714
	Delivered, sold by ticket.....	.0833	.0833
CALIFORNIA.			
Los Angeles.....	Delivered.....	.0933	.0825
	Delivered.....	.0933	.0825
	Delivered, from cans.....	.0867	.0890
San Francisco.....	Delivered, 1 quart daily, \$2.50 per calendar month.	.0822	.0822
	Delivered, 1 quart daily, \$2.50 per calendar month.	.0822	.0822
	Delivered, 1 quart daily, \$2.50 per calendar month.	.0822	.0822
	Delivered, 1 quart daily, \$2.50 per calendar month.	.0822	.0822
COLORADO.			
Denver.....	Delivered.....	.0625	.0625
	Delivered.....	.0625	.0625
	Delivered, 16 quarts sold for \$1.....	.0625	.0625
CONNECTICUT.			
New Haven.....	Delivered.....	.0650	.0650
	Delivered.....	.0650	.0650
	Delivered.....	.0650	.0650
DELAWARE.			
Wilmington.....	Delivered.....	.0717	.0717
	Delivered.....	.0717	.0717
	Delivered.....	.0717	.0717
DISTRICT OF COLUMBIA.			
Washington.....	Delivered.....	.0800	.0800
	Delivered.....	.0800	.0800
	Delivered.....	.0800	.0800
FLORIDA.			
Jacksonville.....	Delivered, 11 tickets sold for \$1.....	.0909	.0909
	Delivered, 11 tickets sold for \$1.....	.0909	.0909
	Delivered, 11 tickets sold for \$1, Jan. 1904, to Oct., 1905; 10 cents straight, Nov. and Dec., 1905.	.0909	.0923
GEORGIA.			
Atlanta.....	Delivered.....	.0800	.0867
	Delivered, 3 quarts for 25 cents.....	.0833	.0833
	Delivered, sold by ticket.....	.0800	.0800
ILLINOIS.			
Chicago.....	Delivered.....	.0700	.0700
	Delivered.....	.0700	.0700
	Delivered.....	.0600	.0600
Peoria.....	Delivered, sold by ticket.....	.0625	.0625
	Delivered, sold by ticket.....	.0625	.0625
INDIANA.			
Indianapolis.....	Delivered.....	.0600	.0600
	Delivered.....	.0600	.0600
	Delivered, sold by ticket.....	.0556	.0556
Terre Haute.....	Delivered.....	.0625	.0625
	Delivered.....	.0625	.0625
	Delivered.....	.0625	.0625
IOWA.			
Des Moines.....	Delivered.....	.0573	.0573
	Delivered.....	.0567	.0600
	Delivered.....	.0573	.0573
Dubuque.....	Delivered.....	.0563	.0563
	Delivered.....	.0573	.0573
	Delivered.....	.0562	.0562

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

MILK, FRESH, UNSKIMMED, PER QUART—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
KANSAS.			
Topeka.....	Delivered.....	\$0.0625	\$0.0625
	Delivered.....	.0558	.0558
	Delivered.....	.0600	.0600
KENTUCKY.			
Louisville.....	Delivered.....	.0629	.0629
	Delivered.....	.0708	.0750
	Delivered.....	.0750	.0750
LOUISIANA.			
New Orleans.....	Delivered.....	.0750	.0750
	Delivered.....	.0750	.0750
	Delivered.....	.0750	.0750
MAINE.			
Portland.....	Delivered.....	.0600	.0617
	Delivered.....	.0600	.0658
	Delivered.....	.0600	.0625
MARYLAND.			
Baltimore.....	Delivered.....	.0800	.0800
	Delivered.....	.0800	.0800
	Delivered.....	.0850	.0850
	Delivered.....	.0800	.0800
	Delivered.....	.0800	.0800
	Delivered, from cans.....	.0700	.0700
MASSACHUSETTS.			
Boston.....	Delivered.....	.0700	.0700
	Delivered.....	.0700	.0700
	Delivered.....	.0750	.0750
Fall River.....	Delivered.....	.0650	.0650
	Delivered.....	.0650	.0650
	Delivered.....	.0633	.0600
Lynn.....	Delivered.....	.0700	.0700
Malden.....	Delivered.....	.0700	.0700
	Delivered.....	.0700	.0700
	Delivered.....	.0700	.0700
Worcester.....	Delivered.....	.0600	.0600
	Delivered.....	.0600	.0600
	Delivered.....	.0600	.0600
MICHIGAN.			
Detroit.....	Delivered.....	.0608	.0633
	Delivered.....	.0550	.0650
	Delivered.....	.0600	.0600
Grand Rapids.....	Delivered.....	.0600	.0600
	Delivered.....	.0600	.0600
	Delivered.....	.0600	.0600
MINNESOTA.			
Duluth.....	Delivered.....	.0550	.0550
Minneapolis.....	Delivered.....	.0567	.0567
	Delivered.....	.0567	.0567
	Delivered.....	.0558	.0558
St. Paul.....	Delivered, 18 quarts during winter months and 20 quarts during summer months sold for \$1.....	.0528	.0528
	Delivered.....	.0558	.0558
MISSOURI.			
Kansas City.....	Delivered.....	.0600	.0600
	Delivered.....	.0600	.0600
St. Louis.....	Delivered.....	.0600	.0600
	Delivered, 14 tickets sold for \$1.....	.0714	.0714
	Delivered, 14 tickets sold for \$1.....	.0714	.0714
MONTANA.			
Butte.....	Delivered, 1 quart daily, \$2.50 per month.....	.0833	.0833
	Delivered, 1 quart daily, \$2.50 per month.....	.0833	.0833
	Delivered, 1 quart daily, \$2.50 per month.....	.0833	.0833
NEBRASKA.			
Omaha.....	Delivered.....	.0500	.0500
	Delivered.....	.0600	.0600
	Delivered.....	.0500	.0500
NEW HAMPSHIRE.			
Manchester.....	Delivered.....	.0600	.0600
	Delivered.....	.0600	.0600
	Delivered.....	.0550	.0600

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

MILK, FRESH, UNSKIMMED, PER QUART—Continued.

State and locality.	Description.	Average price.		
		1904.	1905.	
NEW JERSEY.				
Jersey City.....	Delivered.....	\$0.0700	\$0.0700	
	Delivered.....	.0767	.0733	
	Delivered.....	.0742	.0800	
	Delivered.....	.0800	.0800	
	Delivered.....	.0800	.0800	
Trenton.....	Delivered.....	.0800	.0800	
	Delivered.....	.0800	.0800	
	NEW YORK.			
	Albany.....	Delivered.....	.0600	.0600
		Delivered.....	.0600	.0600
Delivered.....		.0600	.0600	
Delivered.....		.0800	.0800	
Delivered.....		.0800	.0800	
Brooklyn.....	Delivered.....	.0800	.0800	
	Delivered.....	.0800	.0800	
	Delivered.....	.0600	.0600	
	Delivered.....	.0600	.0600	
	Delivered.....	.0600	.0600	
Buffalo.....	Delivered.....	.0600	.0600	
	Delivered.....	.0600	.0600	
	Delivered.....	.0600	.0600	
	Delivered.....	.0600	.0600	
	Delivered.....	.0600	.0600	
Flushing.....	Delivered.....	.0600	.0600	
	Delivered.....	.0800	.0800	
	Delivered.....	.0800	.0800	
	Delivered.....	.0800	.0800	
	Delivered.....	.0800	.0800	
New York (a).....	Delivered.....	.0600	.0600	
	Delivered.....	.0800	.0800	
	Delivered.....	.0600	.0600	
	Delivered.....	.0558	.0550	
	Delivered.....	.0600	.0517	
Rochester.....	Delivered.....	.0600	.0608	
	Delivered, 16 quarts sold for \$1.....	.0625	.0625	
	Delivered, sold by the quart, Jan. to July, 1904; 18 quarts sold for \$1, Aug., 1904, to Dec., 1905.....	.0560	.0556	
	SYRACUSE.			
	Syracuse.....	Delivered.....	.0550	.0550
Delivered.....		.0550	.0550	
Delivered.....		.0558	.0550	
OHIO.				
Cincinnati.....	Delivered.....	.0600	.0600	
	Delivered.....	.0600	.0600	
	Delivered.....	.0600	.0600	
	Delivered.....	.0600	.0600	
	Delivered.....	.0642	.0642	
Cleveland.....	Delivered.....	.0558	.0600	
	Delivered.....	.0658	.0650	
	Delivered.....	.0600	.0600	
	Delivered.....	.0600	.0600	
	Delivered.....	.0600	.0600	
Toledo.....	Delivered.....	.0600	.0600	
	Delivered.....	.0600	.0600	
	Delivered.....	.0500	.0533	
	OREGON.			
	Portland.....	Delivered.....	.0799	.0833
Delivered, 1 quart daily, \$2.25 per month.....		.0740	.0740	
Delivered, 1 quart daily, \$2.25 per month.....		.0740	.0740	
PENNSYLVANIA.				
Allegheny.....	Delivered.....	.0650	.0667	
	Delivered.....	.0647	.0658	
	Delivered.....	.0650	.0700	
	Delivered.....	.0800	.0800	
	Delivered.....	.0800	.0800	
Philadelphia.....	Delivered.....	.0800	.0800	
	Delivered.....	.0800	.0800	
	Delivered.....	.0800	.0800	
	Delivered.....	.0800	.0800	
	Delivered.....	.0800	.0800	
Pittsburg.....	Delivered.....	.0700	.0650	
	Delivered.....	.0750	.0758	
	Delivered.....	.0667	.0658	
	Delivered.....	.0717	.0717	
	Delivered.....	.0758	.0758	
Scranton.....	Delivered.....	.0717	.0717	
	Delivered.....	.0800	.0800	
	Delivered.....	.0800	.0800	
	Delivered.....	.0800	.0800	
	Delivered.....	.0800	.0800	
Wilkes-Barre.....	Delivered.....	.0800	.0800	
	Delivered.....	.0800	.0800	
	RHODE ISLAND.			
	Providence.....	Delivered.....	.0650	.0650
		Delivered.....	.0650	.0650
Delivered.....		.0650	.0650	

* Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

MILK, FRESH, UNSKIMMED, PER QUART—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
SOUTH CAROLINA.			
Charleston.....	Delivered.....	\$0.0800	\$0.0800
	Delivered.....	.0800	.0800
	Delivered.....	.0800	.0800
SOUTH DAKOTA.			
Sioux Falls.....	Delivered.....	.0500	.0500
	Delivered.....	.0550	.0550
	Delivered, pasteurized.....	.0600	.0600
TENNESSEE.			
Memphis.....	Delivered, sold by ticket.....	.0833	.0833
	Delivered, sold by ticket.....	.0846	.0833
	Delivered, sold by ticket.....	.0833	.0833
Nashville.....	Delivered.....	.0500	.0567
	Delivered.....	.0575	.0575
	Delivered.....	.0558	.0558
TEXAS.			
Dallas.....	Delivered.....	.0625	.0625
	Delivered, 16 tickets sold for \$1.....	.0625	.0625
	Delivered, 16 tickets sold for \$1, except Jan. to March, 1904.....	.0636	.0625
San Antonio.....	Delivered.....	.0750	.0750
	Delivered.....	.0750	.0750
	Delivered, 14 tickets sold for \$1.....	.0714	.0714
UTAH.			
Salt Lake City.....	Delivered.....	.0625	.0625
	Delivered.....	.0625	.0625
	Delivered.....	.0625	.0625
VIRGINIA.			
Norfolk.....	Delivered.....	.0800	.0800
	Delivered.....	.0833	.1000
	Delivered.....	.0817	.1000
Richmond.....	Delivered.....	.0617	.0700
	Delivered.....	.0708	.0717
	Delivered.....	.0708	.0717
WASHINGTON.			
Seattle.....	Delivered.....	.0650	.0679
	Delivered.....	.0642	.0650
	Delivered, sold by ticket.....	.0698	.0668
Tacoma.....	Delivered.....	.0573	.0573
	Delivered, sold by ticket.....	.0647	.0602
	Delivered, sold by ticket.....	.0636	.0659
WEST VIRGINIA.			
Wheeling.....	Delivered.....	.0800	.0800
	Delivered.....	.0800	.0800
	Delivered.....	.0800	.0800
WISCONSIN.			
Milwaukee.....	Delivered.....	.0588	.0588
	Delivered.....	.0533	.0533
	Delivered, from cans.....	.0500	.0500
	Jersey, delivered, in bottles.....	.0600	.0600

MOLASSES, PER GALLON.

ALABAMA.			
Birmingham.....	New Orleans, best.....	\$0.7500	\$0.7500
	New Orleans, best.....	.7500	.7500
	New Orleans, best.....	.7500	.7500
Montgomery.....	Georgia, cane.....	.5000	.5000
	Georgia, cane, medium.....	.5000	.5000
ARKANSAS.			
Little Rock.....	New Orleans.....	.6500	.6500
	New Orleans, sugar house, best.....	.6000	.6000
CALIFORNIA.			
Los Angeles.....	New Orleans, medium.....	.5000	.5000
	New Orleans, medium.....	.6000	.6000
San Francisco.....	New Orleans.....	.6500	.6500
	New Orleans, amber.....	.6000	.6000
	New Orleans, medium.....	.6000	.6000
	New Orleans, No. 3.....	.5000	.5000

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

MOLASSES, PER GALLON—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
COLORADO.			
Denver.....	New Orleans.....	\$0.7500	\$0.7500
	New Orleans, medium.....	.5000	.5000
CONNECTICUT.			
New Haven.....	New Orleans, best.....	.5000	.5000
	New Orleans, best.....	.5000	.5000
DELAWARE.			
Wilmington.....	New Orleans, medium, sold by the quart.....	.6000	.6000
	Sirup, pure sugar.....	.4500	.4600
DISTRICT OF COLUMBIA.			
Washington.....	New Orleans, open kettle, best.....	.6000	.6000
	New Orleans, open kettle, best.....	.6000	.6000
	New Orleans, open kettle, best.....	.6000	.6000
	Porto Rico, good.....	.4000	.4000
FLORIDA.			
Jacksonville.....	Sirup, Florida.....	.4250	.4250
	Sirup, Florida, cane.....	.5000	.5000
	Sirup, Florida, cane.....	.5000	.5000
GEORGIA.			
Atlanta.....	New Orleans, best.....	.5500	.5333
	New Orleans, best.....	.5000	.5000
	New Orleans, best.....	.5000	.5000
ILLINOIS.			
Chicago.....	New Orleans, best.....	.5000	.6167
	New Orleans, best.....	.6000	.6000
	New Orleans, best.....	.4500	.5000
	New Orleans, best.....	.6000	.5500
Peoria.....	New Orleans, medium.....	.6000	.6000
	New Orleans, medium.....	.6000	.6000
INDIANA.			
Indianapolis.....	New Orleans, best, sold by the quart.....	.6000	.6000
	Sirup, corn, manipulated.....	.3500	.3500
	Sirup, corn, manipulated, sold by the quart.....	.4000	.4000
Terre Haute.....	New Orleans, best, sold by the quart.....	.6000	.6000
	Sirup, corn, sold by the quart.....	.4000	.4000
IOWA.			
Des Moines.....	New Orleans, best.....	.6500	.6000
	New Orleans, medium.....	.4000	.4000
Dubuque.....	New Orleans, good.....	.6400	.6000
	New Orleans, medium.....	.5000	.5000
	Sirup, corn, sold in 10-pound cans.....	.3500	.3500
KANSAS.			
Topeka.....	New Orleans, best.....	.6000	.6000
	New Orleans, medium.....	.5000	.5000
KENTUCKY.			
Louisville.....	New Orleans, best.....	.5000	.5000
	New Orleans, sugar house, open kettle.....	.6167	.6383
LOUISIANA.			
New Orleans.....	New Orleans, dark.....	.3000	.3000
	New Orleans, Golden Gate.....	.4000	.4000
	New Orleans, open kettle, best.....	.5583	.6000
MAINE.			
Portland.....	Porto Rico.....	.5000	.5000
	Porto Rico.....	.5000	.5000
MARYLAND.			
Baltimore.....	New Orleans, best.....	.6000	.6050
	New Orleans, medium.....	.5000	.5000
	Porto Rico, medium.....	.4225	.4575
MASSACHUSETTS.			
Boston.....	New Orleans, No. 1, best.....	.4000	.4000
	Porto Rico, best.....	.4500	.4575
	Porto Rico, good.....	.5000	.5000
	Porto Rico, medium.....	.5500	.5000
Fall River.....	New Orleans, best.....	.5000	.5000
	Porto Rico, fancy.....	.4575	.4800
Lynn.....	New Orleans, medium.....	.4500	.4500
	Porto Rico, medium.....	.4000	.4000
Malden.....	New Orleans, best.....	.5500	.6000
	New Orleans, medium.....	.4000	.4000
	Porto Rico, medium.....	.5000	.5000
Worcester.....	New Orleans, best.....	.5500	.6000
	Porto Rico, best.....	.5000	.5000

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

MOLASSES, PER GALLON—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
MICHIGAN.			
Detroit.....	New Orleans, good.....	\$0.5000	\$0.5000
	New Orleans, good.....	.5000	.5000
Grand Rapids.....	New Orleans, low grade.....	.4000	.4000
	New Orleans, open kettle, good, sold by the quart.....	.6000	.6000
	New Orleans, medium.....	.5000	.5000
MINNESOTA.			
Duluth.....	New Orleans, best.....	.5000	.6000
	Porto Rico or New Orleans, medium.....	.5000	.5000
Minneapolis.....	New Orleans, medium.....	.4000	.4000
	New Orleans, open kettle, fancy.....	.5000	.5000
	Porto Rico, best.....	.6000	.6000
St. Paul.....	New Orleans, good.....	.4000	.4000
	New Orleans, medium.....	.4000	.4000
MISSOURI.			
Kansas City.....	New Orleans, medium.....	.5000	.5000
	New Orleans, medium.....	.5000	.5000
St. Louis.....	New Orleans, medium.....	.6000	.6000
	New Orleans, medium.....	.4500	.4500
	New Orleans, second grade.....	.4000	.4000
MONTANA.			
Butte.....	New Orleans, good.....	.6000	.6000
	New Orleans, good.....	.6500	.6500
NEBRASKA.			
Omaha.....	New Orleans, best.....	.6000	.6000
	New Orleans, best.....	.6000	.6000
NEW HAMPSHIRE.			
Manchester.....	Porto Rico, first grade.....	.6000	.6000
	Porto Rico, second grade.....	.5000	.5000
NEW JERSEY.			
Jersey City.....	New Orleans, open kettle.....	.5500	.5500
	New Orleans, open kettle, sold by the quart.....	.6000	.6000
Trenton.....	New Orleans, best.....	.6000	.6000
	New Orleans, best.....	.6000	.6000
	New Orleans, best.....	.6000	.6000
NEW YORK.			
Albany.....	New Orleans, best.....	.5500	.5500
	Porto Rico, medium.....	.5000	.5000
Brooklyn.....	Compound.....	.5500	.5500
	New Orleans, best.....	.4500	.4500
Buffalo.....	New Orleans, medium.....	.4800	.4800
	New Orleans, medium.....	.4000	.4000
	New Orleans, medium.....	.4000	.4000
	Porto Rico, best.....	.4000	.4000
	Porto Rico, black, best.....	.4500	.4500
Flushing.....	New Orleans, best.....	.5000	.5000
	New Orleans, best, sold by the quart.....	.6000	.6000
New York(a).....	New Orleans, best.....	.5375	.5875
	New Orleans, best.....	.5000	.5000
	New Orleans, best.....	.6000	.6000
	New Orleans, medium.....	.5750	.6000
Rochester.....	New Orleans, best.....	.5000	.5000
	New Orleans, best.....	.5000	.5000
	Porto Rico, medium.....	.4000	.4000
Syracuse.....	New Orleans, best.....	.5000	.5000
	New Orleans, sold by the quart.....	.6000	.6000
OHIO.			
Cincinnati.....	New Orleans, medium.....	.6000	.6000
	New Orleans, medium.....	.5000	.5000
	New Orleans, prime.....	.5500	.5500
Cleveland.....	New Orleans, good.....	.5000	.5000
	New Orleans, good.....	.5000	.5000
	New Orleans, medium.....	.4000	.4000
	Porto Rico, medium.....	.4000	.4000
Toledo.....	New Orleans, medium.....	.6000	.6000
	New Orleans, medium.....	.5000	.5000
OREGON.			
Portland.....	New Orleans, best.....	.9000	.9000
	New Orleans, medium.....	.6000	.6000
	Sirup, silver drip.....	.7500	.7500

(a) Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

MOLASSES, PER GALLON—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
PENNSYLVANIA.			
Allegheny.....	New Orleans, open kettle, medium.....	\$0.5500	\$0.50
	New Orleans open kettle, medium, sold by the quart.....	.6000	.60
	New Orleans Rockwood, medium, sold by the quart.....	.6000	.60
Philadelphia.....	New Orleans, best.....	.5000	.50
	New Orleans, best.....	.5000	.50
	New Orleans medium.....	.4000	.40
Pittsburg.....	Sirup, sugar house, best, sold by the quart.....	.4800	.48
	Sirup, sugar house, medium.....	.4000	.40
	New Orleans, best, sold by the quart.....	.6000	.60
Scranton.....	New Orleans, Palmetto.....	.1500	.15
	New Orleans, medium.....	.6000	.60
Wilkes-Barre.....	New Orleans, medium.....	.5000	.50
	New Orleans, medium.....	.6000	.60
	New Orleans, medium.....	.6000	.60
	Sirup, sugar.....	.4500	.45
RHODE ISLAND.			
Providence.....	New Orleans, best.....	.5000	.50
	New Orleans best.....	.5000	.50
	New Orleans superior.....	.6000	.60
SOUTH CAROLINA.			
Charleston.....	New Orleans, fair.....	.5000	.50
	New Orleans, good.....	.6000	.60
SOUTH DAKOTA.			
Sioux Falls.....	New Orleans, medium.....	.4500	.45
	New Orleans, medium.....	.5000	.50
TENNESSEE.			
Memphis.....	Louisiana, cane, best, sold by the quart..	.6000	.60
	New Orleans, best.....	.6000	.60
	New Orleans and corn, blended, sold by the quart.....	.5000	.51
Nashville.....	New Orleans, best.....	.5000	.50
	New Orleans, best.....	.5000	.50
TEXAS.			
Dallas.....	Louisiana, cane.....	.6667	.64
	New Orleans, medium.....	.6500	.60
	New Orleans, choice.....	.6500	.63
San Antonio.....	New Orleans, medium.....	.5000	.50
	New Orleans, medium.....	.5000	.50
UTAH.			
Salt Lake City.....	New Orleans, medium.....	.7500	.75
	New Orleans, medium.....	.7500	.75
	New Orleans, medium.....	.7500	.75
	Sirup, Golden Eagle.....	.5000	.50
	Sirup, Golden Eagle.....	.5000	.50
VIRGINIA.			
Norfolk.....	New Orleans, good.....	.6000	.60
	New Orleans, good.....	.6000	.60
	New Orleans, good.....	.6000	.60
Richmond.....	New Orleans, good.....	.6000	.60
	New Orleans, good, sold by the quart can.	.6000	.60
	Porto Rico, good.....	.4000	.40
WASHINGTON.			
Seattle.....	New Orleans, medium.....	.5000	.50
	New Orleans, medium.....	.5000	.50
	New Orleans, medium.....	.7000	.70
Tacoma.....	Sirup, candy drip, medium.....	.6000	.60
WEST VIRGINIA.			
Wheeling.....	New Orleans, medium.....	.4000	.40
	New Orleans, medium.....	.5000	.50
WISCONSIN.			
Milwaukee.....	New Orleans, medium.....	.4000	.40
	New Orleans, open kettle, fancy.....	.4000	.40

MUTTON AND LAMB, PER POUND.

ALABAMA.			
Birmingham.....	Lamb, leg.....	\$0.2000	\$0.18
	Mutton, leg.....	.1700	.17
	Mutton, leg.....	.1250	.12
Montgomery.....	Mutton, leg.....	.1140	.11

TABLE L.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

MUTTON AND LAMB, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
ARKANSAS.			
Little Rock.....	Mutton, leg.....	\$0.1500	\$0.1500
	Mutton, leg.....	.1500	.1500
CALIFORNIA.			
Los Angeles.....	Mutton, leg.....	.1313	.1333
	Mutton, leg.....	.1250	.1250
San Francisco.....	Mutton, leg.....	.1042	.1201
	Mutton, leg.....	.0975	.1121
	Mutton, leg.....	.1375	.1458
	Mutton, leg.....	.1500	.1500
COLORADO.			
Denver.....	Mutton, leg.....	.1250	.1250
	Mutton, leg, best.....	.1500	.1500
CONNECTICUT.			
New Haven.....	Mutton, leg.....	.1608	.1625
	Mutton, leg.....	.1300	.1292
	Mutton, leg.....	.1625	.1550
DELAWARE.			
Wilmington.....	Mutton, leg.....	.1279	.1296
DISTRICT OF COLUMBIA.			
Washington.....	Mutton, leg.....	.1296	.1371
	Mutton, leg.....	.1425	.1429
	Mutton, leg.....	.1288	.1325
FLORIDA.			
Jacksonville.....	Mutton, leg.....	.2000	.2000
	Mutton, leg.....	.1800	.1850
	Mutton, leg.....	.1583	.1550
GEORGIA.			
Atlanta.....	Mutton, leg.....	.1500	.1500
	Mutton, leg.....	.1550	.1533
ILLINOIS			
Chicago.....	Mutton, leg.....	.1083	.1200
	Mutton, leg.....	.1000	.1083
	Mutton, leg.....	.1233	.1417
	Mutton, leg.....	.1000	.1200
Peoria.....	Mutton, leg.....	.1213	.1354
	Mutton, leg.....	.1321	.1483
	Mutton, leg.....	.1500	.1500
INDIANA.			
Indianapolis.....	Mutton, leg.....	.1667	.1500
	Mutton, leg.....	.1650	.1675
	Mutton, leg, best.....	.2000	.1917
Terre Haute.....	Mutton, leg.....	.1500	.1625
	Mutton, leg.....	.1200	.1425
IOWA.			
Des Moines.....	Mutton, leg.....	.1513	.1508
	Mutton, leg.....	.1375	.1375
Dubuque.....	Lamb, leg.....	.1833	.1833
	Mutton, leg.....	.1400	.1375
KANSAS.			
Topeka.....	Mutton, leg.....	.1321	.1500
	Mutton, leg.....	.1333	.1396
KENTUCKY.			
Louisville.....	Mutton, leg.....	.1354	.1354
	Mutton, leg.....	.1400	.1563
LOUISIANA.			
New Orleans.....	Mutton, leg.....	.1500	.1500
	Mutton, leg.....	.1500	.1500
	Mutton, leg.....	.1500	.1500
MAINE.			
Portland.....	Mutton, leg.....	.1317	.1350
	Mutton, leg.....	.1362	.1592
	Mutton, leg.....	.1486	.1514
MARYLAND.			
Baltimore.....	Mutton, leg.....	.1400	.1392
	Mutton, leg.....	.1400	.1567
	Mutton, leg.....	.1342	.1350

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

MUTTON AND LAMB, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
MASSACHUSETTS.			
Boston.....	Mutton, leg.....	\$0.1317	\$0.1371
	Mutton, leg.....	.1146	.1258
	Mutton, leg.....	.1342	.1292
Fall River.....	Mutton, leg.....	.1183	.1150
	Mutton, leg.....	.1150	.1317
Lynn.....	Mutton, leg.....	.1158	.1158
Malden.....	Mutton, leg.....	.1400	.1408
Worcester.....	Mutton, leg.....	.1825	.1783
	Mutton, leg.....	.1142	.1217
MICHIGAN.			
Detroit.....	Mutton, leg.....	.1158	.1200
	Mutton, leg.....	.1271	.1300
Grand Rapids.....	Mutton, leg.....	.1267	.1267
	Mutton, leg.....	.1525	.1525
MINNESOTA.			
Duluth.....	Mutton, leg.....	.1250	.1250
	Mutton, leg.....	.1217	.1313
	Mutton, leg.....	.1333	.1333
Minneapolis.....	Mutton, leg.....	.1225	.1379
	Mutton, leg.....	.1267	.1208
St. Paul.....	Mutton, leg.....	.1146	.1342
	Mutton, leg.....	.1146	.1483
MISSOURI.			
Kansas City.....	Mutton, leg.....	.1313	.1500
	Mutton, leg.....	.1288	.1375
St. Louis.....	Mutton, leg.....	.0850	.0900
	Mutton, leg.....	.1083	.1117
	Mutton, leg, medium.....	.1075	.1067
MONTANA.			
Butte.....	Mutton, leg.....	.1354	.1196
	Mutton, leg.....	.1354	.1354
NEBRASKA.			
Omaha.....	Mutton, leg.....	.1375	.1500
	Mutton, leg.....	.1333	.1500
NEW HAMPSHIRE.			
Manchester.....	Mutton, leg.....	.1475	.1358
	Mutton, leg.....	.1533	.1017
NEW JERSEY.			
Jersey City.....	Mutton, leg.....	.1329	.1308
	Mutton, leg.....	.1279	.1267
Trenton.....	Mutton, leg.....	.1600	.1600
	Mutton, leg.....	.1600	.1600
NEW YORK.			
Albany.....	Mutton, leg.....	.1683	.1767
	Mutton, leg.....	.1550	.1550
Brooklyn.....	Mutton, leg.....	.1442	.1533
	Mutton, leg.....	.1467	.1433
	Mutton, leg.....	.1709	.1683
Buffalo.....	Mutton, leg.....	.1200	.1408
	Mutton, leg.....	.1108	.1300
	Mutton, leg, best.....	.1533	.1517
	Mutton, leg, second grade.....	.1100	.1100
	Mutton, leg, second grade.....	.1000	.0867
Flushing.....	Mutton, leg.....	.1458	.1433
	Mutton, leg.....	.1567	.1500
New York (a).....	Mutton, leg.....	.1242	.1229
	Mutton, leg.....	.1683	.1900
	Mutton, leg.....	.1167	.1317
	Mutton, leg.....	.1250	.1250
Rochester.....	Mutton, leg.....	.1288	.1209
	Mutton, leg.....	.1075	.1209
	Mutton, leg.....	.1175	.1283
	Mutton, leg.....	.1208	.1200
Syracuse.....	Mutton, leg.....	.1283	.1300
	Mutton, leg.....	.1683	.1783
	Mutton, leg, prime.....	.1533	.1650
OHIO.			
Cincinnati.....	Mutton, leg.....	.1288	.1300
	Mutton, leg, good.....	.1500	.1500
	Mutton, leg, medium.....	.1000	.1167
Cleveland.....	Mutton, leg.....	.1475	.1550
	Mutton, leg.....	.1233	.1233

(a) Boroughs of Manhattan and Bronx only.

RETAIL PRICES OF FOOD, 1890 TO 1905.

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TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

MUTTON AND LAMB, PER POUND—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
OHIO—concluded.			
Cleveland.....	Mutton, leg.....	\$0.1083	\$0.1163
	Mutton, leg.....	.1417	.1417
Toledo.....	Mutton, leg.....	.1050	.1050
	Mutton, leg.....	.1400	.1400
OREGON.			
Portland.....	Mutton, leg.....	.1188	.1250
	Mutton, leg.....	.1213	.1250
PENNSYLVANIA.			
Allegheny.....	Mutton, leg.....	.1396	.1396
Philadelphia.....	Mutton, leg.....	.1275	.1292
	Mutton, leg.....	.1267	.1392
	Mutton, leg.....	.1325	.1275
Pittsburg.....	Mutton, leg.....	.1500	.1500
	Mutton, leg.....	.1300	.1500
Scranton.....	Mutton, leg.....	.1600	.1600
	Mutton, leg.....	.1800	.1800
Wilkes-Barre.....	Mutton, leg.....	.1800	.1800
	Mutton, leg.....	.1800	.1800
RHODE ISLAND.			
Providence.....	Mutton, leg.....	.1342	.1442
	Mutton, leg.....	.1092	.1675
SOUTH CAROLINA.			
Charleston.....	Mutton, leg.....	.1000	.1000
	Mutton, leg.....	.1104	.1313
SOUTH DAKOTA.			
Sioux Falls.....	Mutton, leg.....	.1396	.1417
	Mutton, leg.....	.1500	.1458
TENNESSEE.			
Memphis.....	Mutton, leg.....	.1500	.1500
	Mutton, leg.....	.1750	.1717
	Mutton, leg, medium.....	.1500	.1500
Nashville.....	Mutton, leg.....	.1250	.1250
	Mutton, leg.....	.1000	.1042
TEXAS.			
Dallas.....	Mutton, leg.....	.1500	.1500
	Mutton, leg.....	.1500	.1500
San Antonio.....	Mutton, leg.....	.1500	.1917
	Mutton, leg.....	.1500	.1500
UTAH.			
Salt Lake City.....	Mutton, leg.....	.1250	.1250
	Mutton, leg.....	.1146	.1250
	Mutton, leg.....	.1229	.1250
VIRGINIA.			
Norfolk.....	Mutton, leg.....	.1083	.1092
	Mutton, leg.....	.0900	.0908
Richmond.....	Mutton, leg.....	.1500	.1517
	Mutton, leg.....	.1500	.1500
WASHINGTON.			
Seattle.....	Mutton, leg.....	.1125	.1167
	Mutton, leg.....	.1167	.1167
	Mutton, leg.....	.1167	.1250
Tacoma.....	Mutton, leg.....	.1175	.1396
	Mutton, leg.....	.1375	.1375
WEST VIRGINIA.			
Wheeling.....	Mutton, leg.....	.1650	.1625
	Mutton, leg.....	.1375	.1333
WISCONSIN.			
Milwaukee.....	Mutton, leg.....	.1400	.1500
	Mutton, leg.....	.1083	.1667

PORK, FRESH, PER POUND.

ALABAMA.			
Birmingham.....	Chops.....	\$0.1563	\$0.1625
	Chops.....	.1525	.1550
	Chops.....	.1642	.1525

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

PORK, FRESH, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
ALABAMA—concluded.			
Montgomery.....	Chops.....	\$0. 1500	\$0. 1500
	Chops.....	. 1366	. 1366
	Chops.....	. 1500	. 1500
ARKANSAS.			
Little Rock.....	Chops.....	. 1500	. 1500
	Chops.....	. 1500	. 1500
	Chops.....	. 1000	. 1000
CALIFORNIA.			
Los Angeles.....	Chops.....	. 1500	. 1517
	Chops.....	. 1500	. 1500
	Chops.....	. 1750	. 1750
San Francisco.....	Chops.....	. 1250	. 1250
	Chops.....	. 1500	. 1500
	Chops.....	. 1500	. 1500
	Chops.....	. 1800	. 1800
COLORADO.			
Denver.....	Chops.....	. 1250	. 1292
	Chops.....	. 1100	. 1100
	Chops.....	. 1250	. 1250
CONNECTICUT.			
New Haven.....	Chops.....	. 1200	. 1292
	Chops.....	. 1367	. 1450
	Chops.....	. 1633	. 1450
DELAWARE.			
Wilmington.....	Chops.....	. 1600	. 1583
	Chops.....	. 1288	. 1325
DISTRICT OF COLUMBIA.			
Washington.....	Chops.....	. 1442	. 1413
	Chops.....	. 1400	. 1413
	Chops.....	. 1433	. 1458
FLORIDA.			
Jacksonville.....	Chops.....	. 2000	. 2000
	Chops.....	. 1933	. 1800
	Chops.....	. 1642	. 1608
	Chops, home dressed.....	. 1500	. 1500
	Chops, western.....	. 1950	. 1950
GEORGIA.			
Atlanta.....	Chops.....	. 1250	. 1346
	Chops.....	. 1542	. 1525
	Chops.....	. 1521	. 1563
ILLINOIS.			
Chicago.....	Chops.....	. 1025	. 1050
	Chops.....	. 1117	. 1192
	Chops.....	. 1183	. 1183
	Chops.....	. 1275	. 1175
	Chops.....	. 1138	. 1167
Peoria.....	Chops.....	. 1258	. 1396
	Chops.....	. 1500	. 1500
	Chops.....	. 1083	. 1217
	Chops.....	. 1292	. 1438
INDIANA.			
Indianapolis.....	Chops.....	. 1550	. 1533
	Chops.....	. 1354	. 1467
	Chops.....	. 1375	. 1421
Terre Haute.....	Chops.....	. 1442	. 1388
	Chops.....	. 1338	. 1363
	Chops.....	. 1133	. 1133
IOWA.			
Des Moines.....	Chops.....	. 1333	. 1333
	Chops.....	. 1063	. 1121
	Chops.....	. 0986	. 1042
Dubuque.....	Chops.....	. 1417	. 1396
	Chops.....	. 1208	. 1333
	Chops.....	. 1167	. 1354
KANSAS.			
Topeka.....	Chops.....	. 1250	. 1250
	Chops.....	. 1150	. 1250
	Chops.....	. 1175	. 1250

TABLE E.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

PORK, FRESH, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
KENTUCKY.			
Louisville.....	Chops.....	\$0. 1333	\$0. 1371
	Chops.....	. 1354	. 1354
	Steak or roast.....	. 1271	. 1250
LOUISIANA.			
New Orleans.....	Chops.....	. 1500	. 1500
	Chops.....	. 1583	. 1800
	Chops.....	. 1525	. 1508
	Chops.....	. 1575	. 1517
MAINE.			
Portland.....	Chops.....	. 1233	. 1208
	Chops.....	. 1283	. 1325
	Chops.....	. 1425	. 1433
MARYLAND.			
Baltimore.....	Chops.....	. 1358	. 1375
	Chops.....	. 1083	. 1200
	Chops.....	. 1267	. 1258
	Chops.....	. 1358	. 1342
MASSACHUSETTS.			
Boston.....	Chops.....	. 1300	. 1317
	Chops.....	. 1425	. 1442
	Chops.....	. 1433	. 1400
	Chops.....	. 1175	. 1258
Fall River.....	Chops.....	. 1358	. 1333
	Chops.....	. 1267	. 1267
	Chops.....	. 1258	. 1283
Lynn.....	Chops.....	. 1358	. 1375
	Chops.....	. 1483	. 1508
	Chops.....	. 1263	. 1354
Malden.....	Chops.....	. 1467	. 1525
	Chops.....	. 1592	. 1500
	Chops.....	. 1225	. 1275
Worcester.....	Chops.....	. 1450	. 1467
	Chops.....	. 1300	. 1325
	Chops.....	. 1200	. 1167
MICHIGAN.			
Detroit.....	Chops.....	. 1300	. 1308
	Chops.....	. 1250	. 1217
	Chops.....	. 1192	. 1229
Grand Rapids.....	Chops.....	. 1292	. 1250
	Chops.....	. 1288	. 1333
	Chops.....	. 1342	. 1363
MINNESOTA.			
Duluth.....	Chops.....	. 1121	. 1200
	Chops.....	. 1250	. 1417
	Chops.....	. 1279	. 1250
Minneapolis.....	Chops.....	. 1146	. 1233
	Chops.....	. 1250	. 1333
	Chops.....	. 1258	. 1250
St. Paul.....	Chops.....	. 1333	. 1313
	Chops.....	. 1300	. 1329
	Chops.....	. 1125	. 1125
MISSOURI.			
Kansas City.....	Chops.....	. 1313	. 1438
	Chops.....	. 1125	. 1229
	Chops.....	. 1271	. 1375
St. Louis.....	Chops.....	. 1250	. 1300
	Chops.....	. 1083	. 1192
	Chops.....	. 1354	. 1383
	Chops.....	. 1300	. 1321
MONTANA.			
Butte.....	Chops.....	. 1250	. 1500
	Chops.....	. 1250	. 1250
	Chops.....	. 1250	. 1417
NEBRASKA.			
Omaha.....	Chops.....	. 1146	. 1104
	Chops.....	. 1146	. 1146
	Chops.....	. 1125	. 1146
NEW HAMPSHIRE.			
Manchester.....	Chops.....	. 1417	. 1367
	Chops.....	. 1117	. 1142
	Chops.....	. 1329	. 1379

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

PORK, FRESH, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
NEW JERSEY.			
Jersey City.....	Chops.....	\$0. 1317	\$0. 1358
	Chops.....	. 1458	. 1492
	Chops.....	. 1225	. 1225
Trenton.....	Chops.....	. 1333	. 1367
	Chops.....	. 1483	. 1483
	Chops.....	. 1200	. 1375
NEW YORK.			
Albany.....	Chops.....	. 1467	. 1467
	Chops.....	. 1400	. 1400
	Chops.....	. 1450	. 1450
Brooklyn.....	Chops.....	. 1467	. 1592
	Chops.....	. 1400	. 1467
	Chops.....	. 1400	. 1458
Buffalo.....	Chops.....	. 1292	. 1275
	Chops.....	. 1375	. 1358
	Chops.....	. 1367	. 1383
	Chops.....	. 1392	. 1275
Flushing.....	Chops.....	. 1517	. 1517
	Chops.....	. 1458	. 1500
	Chops.....	. 1658	. 1683
New York (a).....	Chops.....	. 2000	. 2000
	Chops.....	. 1338	. 1250
	Chops.....	. 1700	. 1692
	Chops.....	. 1733	. 1950
Rochester.....	Chops.....	. 1117	. 1200
	Chops.....	. 1321	. 1383
	Chops.....	. 1288	. 1250
Syracuse.....	Chops.....	. 1250	. 1317
	Chops.....	. 1408	. 1467
	Chops.....	. 1467	. 1450
OHIO.			
Cincinnati.....	Chops.....	. 1354	. 1375
	Chops.....	. 1333	. 1338
	Chops.....	. 1267	. 1333
	Chops.....	. 1288	. 1300
Cleveland.....	Chops.....	. 1313	. 1288
	Chops.....	. 1250	. 1250
	Chops.....	. 1100	. 1250
	Chops.....	. 1229	. 1317
Toledo.....	Chops.....	. 1246	. 1281
	Chops.....	. 1267	. 1367
	Chops.....	. 1246	. 1054
OREGON.			
Portland.....	Chops.....	. 1250	. 1417
	Chops.....	. 1250	. 1417
	Chops.....	. 1250	. 1417
PENNSYLVANIA.			
Allegheny.....	Chops.....	. 1417	. 1417
	Chops.....	. 1513	. 1604
	Chops.....	. 1500	. 1500
Philadelphia.....	Chops.....	. 1525	. 1400
	Chops.....	. 1608	. 1633
	Chops.....	. 1233	. 1283
	Chops.....	. 1433	. 1400
	Chops.....	. 1375	. 1442
Pittsburg.....	Chops.....	. 1525	. 1542
	Chops.....	. 1517	. 1500
	Chops.....	. 1500	. 1500
Seranton.....	Chops.....	. 1250	. 1250
	Chops.....	. 1413	. 1400
	Chops.....	. 1400	. 1400
Wilkes-Barre.....	Chops.....	. 1313	. 1313
	Chops.....	. 1167	. 1208
	Chops.....	. 1200	. 1263
RHODE ISLAND.			
Providence.....	Chops.....	. 1458	. 1458
	Chops.....	. 1367	. 1408
	Chops.....	. 1392	. 1408
SOUTH CAROLINA.			
Charleston.....	Chops.....	. 1250	. 1250
	Chops.....	. 1500	. 1500
	Chops, home dressed.....	. 1250	. 1250
	Chops, western.....	. 1500	. 1500

a Boroughs of Manhattan and Bronx only.

TABLE L.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

PORK, FRESH, PER POUND—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
SOUTH DAKOTA.			
Sioux Falls.....	Chops.....	\$0.1250	\$0.1354
	Chops.....	.1250	.1333
	Chops.....	.1250	.1333
TENNESSEE.			
Memphis.....	Chops.....	.1700	.1500
	Chops.....	.1500	.1396
	Chops.....	.1542	.1575
Nashville.....	Chops.....	.1250	.1250
	Chops.....	.1250	.1250
	Chops.....	.1146	.1146
TEXAS.			
Dallas.....	Chops.....	.1500	.1500
	Chops.....	.1333	.1333
	Chops.....	.1500	.1333
San Antonio.....	Chops.....	.1354	.1375
	Chops.....	.1333	.1500
	Chops.....	.1500	.1333
UTAH.			
Salt Lake City.....	Chops.....	.1563	.1563
	Chops.....	.1250	.1271
	Chops.....	.1500	.1500
VIRGINIA.			
Norfolk.....	Chops.....	.1267	.1254
	Chops.....	.1213	.1283
	Chops.....	.1138	.1283
Richmond.....	Chops.....	.1375	.1396
	Chops, choice.....	.1500	.1292
	Chops, medium.....	.1250	.1500
WASHINGTON.			
Seattle.....	Chops.....	.1125	.1250
	Chops.....	.1250	.1250
	Chops.....	.1250	.1250
Tacoma.....	Chops.....	.1500	.1500
	Chops.....	.1250	.1396
	Chops.....	.1500	.1500
WEST VIRGINIA.			
Wheeling.....	Chops.....	.1354	.1375
	Chops.....	.1296	.1354
	Chops.....	.1354	.1396
WISCONSIN.			
Milwaukee.....	Chops.....	.1117	.1125
	Chops.....	.1121	.1183
	Chops.....	.1325	.1450

PORK, SALT, BACON, PER POUND.

ALABAMA.			
Birmingham.....	First grade, sliced.....	\$0.2467	\$0.2467
	Piece.....	.1250	.1250
	Sliced, best.....	.2142	.2200
Montgomery.....	Breakfast.....	.2000	.2000
	Breakfast, piece.....	.2000	.2000
	Breakfast, sliced.....	.2000	.2000
ARKANSAS.			
Little Rock.....	Sunlight, sliced.....	.1500	.1500
	Supreme, sliced.....	.2500	.2500
	Supreme, sliced.....	.2250	.2104
CALIFORNIA.			
Los Angeles.....	Sliced.....	.2000	.2000
	Sliced.....	.2500	.2500
	Sliced.....	.1800	.1800
San Francisco.....	Piece.....	.1833	.1800
	Sliced.....	.2000	.2000
	Sliced.....	.2000	.2000
	Sliced.....	.2000	.2000
	Sliced.....	.2500	.2500

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

PORK, FRESH, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
NEW JERSEY.			
Jersey City.....	Chops.....	\$0.1317	\$0.1358
	Chops.....	.1458	.1492
	Chops.....	.1225	.1225
Trenton.....	Chops.....	.1333	.1367
	Chops.....	.1483	.1483
	Chops.....	.1200	.1375
NEW YORK.			
Albany.....	Chops.....	.1467	.1467
	Chops.....	.1400	.1400
	Chops.....	.1450	.1450
Brooklyn.....	Chops.....	.1467	.1592
	Chops.....	.1400	.1467
	Chops.....	.1400	.1458
Buffalo.....	Chops.....	.1292	.1275
	Chops.....	.1375	.1358
	Chops.....	.1367	.1383
Flushing.....	Chops.....	.1392	.1275
	Chops.....	.1517	.1517
	Chops.....	.1458	.1500
	Chops.....	.1658	.1683
New York (a).....	Chops.....	.2000	.2000
	Chops.....	.1338	.1250
	Chops.....	.1700	.1692
Rochester.....	Chops.....	.1733	.1950
	Chops.....	.1117	.1200
	Chops.....	.1321	.1383
Syracuse.....	Chops.....	.1288	.1250
	Chops.....	.1250	.1317
	Chops.....	.1408	.1467
	Chops.....	.1467	.1450
OHIO.			
Cincinnati.....	Chops.....	.1354	.1375
	Chops.....	.1333	.1338
	Chops.....	.1267	.1333
	Chops.....	.1288	.1300
Cleveland.....	Chops.....	.1313	.1288
	Chops.....	.1250	.1250
	Chops.....	.1100	.1250
	Chops.....	.1229	.1317
Toledo.....	Chops.....	.1246	.1281
	Chops.....	.1267	.1367
	Chops.....	.1246	.1054
OREGON.			
Portland.....	Chops.....	.1250	.1417
	Chops.....	.1250	.1417
	Chops.....	.1250	.1417
PENNSYLVANIA.			
Allegheny.....	Chops.....	.1417	.1417
	Chops.....	.1513	.1604
	Chops.....	.1500	.1500
Philadelphia.....	Chops.....	.1525	.1400
	Chops.....	.1608	.1633
	Chops.....	.1233	.1283
	Chops.....	.1433	.1400
	Chops.....	.1375	.1442
Pittsburg.....	Chops.....	.1525	.1542
	Chops.....	.1517	.1500
	Chops.....	.1500	.1500
Scranton.....	Chops.....	.1250	.1250
	Chops.....	.1413	.1400
	Chops.....	.1400	.1400
Wilkes-Barre.....	Chops.....	.1313	.1313
	Chops.....	.1167	.1208
	Chops.....	.1200	.1263
RHODE ISLAND.			
Providence.....	Chops.....	.1458	.1458
	Chops.....	.1367	.1408
	Chops.....	.1392	.1408
SOUTH CAROLINA.			
Charleston.....	Chops.....	.1250	.1250
	Chops.....	.1500	.1500
	Chops, home dressed.....	.1250	.1250
	Chops, western.....	.1500	.1500

* Boroughs of Manhattan and Bronx only.

TABLE E.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

PORK, SALT, BACON, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
MARYLAND.			
Baltimore.....	Cured, rib in, sliced.....	\$0.1500	\$0.1500
	Sliced.....	.1483	.1383
	Sliced.....	.1475	.1525
	Smoked, sliced.....	.1292	.1300
MASSACHUSETTS.			
Boston.....	Piece.....	.1600	.1500
	Piece, 5 pounds.....	.1358	.1358
	Sliced.....	.1450	.1375
	Sliced.....	.1700	.1700
	Sliced.....	.1467	.1408
Fall River.....	Sliced.....	.1533	.1517
	Sliced.....	.1525	.1525
	Sliced.....	.1767	.1833
Lynn.....	Sliced.....	.1400	.1400
	Sliced.....	.1558	.1542
	Sliced.....	.1558	.1629
Malden.....	Sliced.....	.1475	.1458
	Sliced.....	.1383	.1363
Worcester.....	Sliced.....	.2000	.2000
	Sliced.....	.1900	.1967
	Sliced.....	.2100	.2100
MICHIGAN.			
Detroit.....	Boneless, piece.....	.1467	.1367
	Breakfast, piece.....	.1500	.1475
	Breakfast, piece.....	.1550	.1467
	Home-cured, piece.....	.1250	.1250
	Home-cured, sliced.....	.1400	.1400
Grand Rapids.....	Breakfast, sliced.....	.1600	.1783
	Breakfast sliced.....	.1600	.1600
	Smoked, sliced.....	.1600	.1600
MINNESOTA.			
Duluth.....	Medium, sliced.....	.1800	.1800
	No. 2, sliced.....	.1500	.1500
	Piece.....	.1400	.1400
Minneapolis.....	Piece.....	.1304	.1400
	Sliced.....	.2000	.2000
	Sliced.....	.1800	.1833
St. Paul.....	Sliced.....	.1650	.1742
	Sliced.....	.1800	.1800
	Sliced.....	.1500	.1500
MISSOURI.			
Kansas City.....	Breakfast, sliced.....	.2083	.2000
	Medium, sliced.....	.1650	.1817
	Sliced.....	.2188	.2117
St. Louis.....	Medium, sliced.....	.1867	.1883
	Medium, sliced.....	.1750	.1733
	Side, piece.....	.1592	.1633
	Sugar-cured, smoked, sliced.....	.1600	.1625
MONTANA.			
Butte.....	Sliced.....	.2000	.2000
	Sliced.....	.1867	.2000
	Sliced.....	.2500	.2500
NEBRASKA.			
Omaha.....	Sliced.....	.2000	.2000
	Sliced.....	.1500	.1500
	Sliced.....	.1900	.1950
NEW HAMPSHIRE.			
Manchester.....	Breakfast, piece.....	.1817	.1608
	Sliced.....	.1500	.1500
	Sliced.....	.1725	.1600
NEW JERSEY.			
Jersey City.....	Sliced.....	.1800	.1800
	Sliced.....	.1617	.1650
	Smoked, sliced.....	.1450	.1500
Trenton.....	Breakfast, best, piece.....	.2000	.2000
	Sliced.....	.1683	.1600
	Sliced.....	.1800	.1800
NEW YORK.			
Albany.....	Piece.....	.1667	.1667
	Sliced.....	.2000	.2000
	Sliced.....	.1800	.1800
	Sliced.....	.1800	.1800

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

PORK, SALT, BACON, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
NEW YORK—concluded.			
Brooklyn.....	Sliced.....	\$0.2000	\$0.2000
	Sliced.....	.1500	.1500
	Sliced.....	.2000	.2000
Buffalo.....	Sliced.....	.1400	.1400
	Sliced.....	.1400	.1467
	Sliced.....	.1400	.1483
	Sliced.....	.1533	.1600
Flushing.....	Westphalia, boneless, sliced.....	.1733	.1800
	Sliced.....	.1600	.1600
	Sliced.....	.1600	.1600
	Sliced, best.....	.2000	.2000
	Sliced, boneless.....	.1917	.1833
New York (a).....	Breakfast, smoked, sliced.....	.1800	.2000
	Sliced.....	.1633	.1725
	Sliced, medium.....	.2000	.2000
	Sliced, rib in.....	.2000	.2100
	Sliced, rib in.....	.1525	.1617
Rochester.....	Piece.....	.1238	.1275
	Sliced.....	.1217	.1250
	Smoked, piece.....	.1417	.1308
Syracuse.....	Piece.....	.1600	.1600
	Sliced.....	.1600	.1600
	Sliced.....	.2133	.2200
OHIO.			
Cincinnati.....	Choice, piece.....	.1567	.1600
	Choice, piece.....	.1550	.1500
	Dove, piece.....	.1583	.1500
	Sliced.....	.1783	.1867
Cleveland.....	Breakfast, Armour's Star, sliced.....	.2375	.2500
	Breakfast, piece.....	.1446	.1417
	Breakfast, piece.....	.1350	.1350
	Sugar-cured, best, piece, 3 to 5 pounds.....	.2000	.2000
	Sugar-cured, piece.....	.1742	.1567
Toledo.....	Best, sliced.....	.1800	.1950
	Sliced.....	.1600	.1600
	Sliced.....	.2000	.2000
OREGON.			
Portland.....	Home-cured, medium, sliced.....	.1500	.1967
	Sliced.....	.1800	.1800
	Swift's Premium, sliced.....	.2000	.2208
PENNSYLVANIA.			
Allegheny.....	Sliced.....	.1067	.1867
	Sliced.....	.1550	.1592
	Sliced.....	.1575	.1583
Philadelphia.....	Breakfast, sliced.....	.1600	.1700
	Breakfast, sliced.....	.1417	.1433
	Sliced.....	.1417	.1400
	Sliced.....	.1500	.1525
Pittsburg.....	Sliced.....	.2000	.2000
	Sliced.....	.1983	.1967
	Sliced.....	.1538	.1625
Scranton.....	Boneless, piece.....	.1700	.1700
	Breakfast, first grade, piece.....	.1650	.1650
	Medium, sliced.....	.1600	.1600
Wilkes-Barre.....	Breakfast, sliced.....	.1700	.1700
	Piece.....	.1500	.1500
	Piece.....	.1250	.1250
RHODE ISLAND.			
Providence.....	Sliced.....	.1933	.1933
	Sliced.....	.2133	.2017
	Sliced.....	.1683	.1883
SOUTH CAROLINA.			
Charleston.....	Piece.....	.1433	.1450
	Sliced.....	.1600	.1600
	Sliced.....	.1625	.1633
SOUTH DAKOTA.			
Sioux Falls.....	Sliced.....	.2033	.2100
	Sliced.....	.2167	.2283
	Sliced.....	.1950	.2083

* Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

PORK, SALT, BACON, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
TENNESSEE.			
Memphis.....	Breakfast, sliced.....	\$0.2133	\$0.2082
	Medium, sliced.....	.1708	.1783
	Medium, sliced.....	.1800	.1800
Nashville.....	Breakfast, piece.....	.1675	.1763
	Good, sliced.....	.1354	.1250
	Sugar-cured, sliced.....	.1392	.1163
TEXAS.			
Dallas.....	Breakfast, Swift's Premium or Gold Band.....	.2088	.2082
	Gold Band or Premium, sliced.....	.2500	.2500
	Premium, sliced.....	.2500	.2500
San Antonio.....	Capital City, sliced.....	.2880	.2880
	Gold Band, sliced.....	.2250	.2250
	Gold Band, sliced.....	.2000	.2000
UTAH.			
Salt Lake City.....	Medium, sliced.....	.2500	.2500
	Sliced.....	.2000	.2000
	Sliced.....	.2000	.2000
VIRGINIA.			
Norfolk.....	Sliced.....	.1083	.1083
	Smokrd, Baltimore.....	.1600	.1600
	Smokrd, Smithfield.....	.1800	.1800
Richmond.....	Sliced.....	.1500	.1517
	Sliced.....	.1480	.1580
WASHINGTON.			
Seattle.....	Sliced.....	.2000	.2000
	Sliced.....	.1900	.2000
	Sliced.....	.2150	.2200
	Sliced.....	.2008	.2000
Tacoma.....	Sliced.....	.2000	.2000
	Sliced.....	.2080	.2000
	Sliced.....	.2000	.2000
WEST VIRGINIA.			
Wheeling.....	Sliced.....	.1400	.1800
	Sliced.....	.1375	.1417
	Sliced.....	.1500	.1500
WISCONSIN.			
Milwaukee.....	Choice, boneless, piece, 4 to 6 pounds.....	.1650	.1600
	Rib in, piece.....	.1617	.1617
	Select, piece.....	.1550	.1700

PORK, SALT, DRY OR PICKLED, PER POUND.

ALABAMA.			
Birmingham.....	Dry.....	\$0.1113	\$0.1133
	Dry, clear, piece.....	.1250	.1250
Montgomery.....	Dry.....	.1000	.1000
ARKANSAS.			
Little Rock.....	Dry.....	.1375	.1225
	Dry.....	.1000	.1000
CALIFORNIA.			
Los Angeles.....	Dry.....	.1500	.1500
	Dry.....	.1250	.1250
San Francisco.....	Pickled.....	.1250	.1250
	Pickled.....	.1250	.1200
	Pickled.....	.1250	.1250
	Pickled.....	.1500	.1500
COLORADO.			
Denver.....	Dry.....	.1200	.1200
	Dry.....	.1250	.1250
	Dry.....	.1138	.1100
CONNECTICUT.			
New Haven.....	Dry.....	.1200	.1167
	Dry, belly.....	.1233	.1217
DELAWARE.			
Wilmington.....	Dry.....	.1250	.1250

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

PORK, SALT, DRY OR PICKLED, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
DISTRICT OF COLUMBIA.			
Washington.....	Dry.....	\$0.1000	\$0.1208
	Dry.....	.1000	.1033
	Pickled.....	.1500	.1500
	Pickled.....	.1250	.1250
	Pickled.....	.1233	.1213
FLORIDA.			
Jacksonville.....	Dry.....	.1150	.1150
	Dry.....	.0975	.1083
	Dry.....	.1200	.1200
GEORGIA.			
Atlanta.....	Dry.....	.1000	.1000
	Dry, belly.....	.1000	.1000
ILLINOIS.			
Chicago.....	Clear.....	.1008	.1083
	Dry, clear.....	.1133	.1250
	Dry, clear.....	.1150	.1067
	Dry, clear.....	.1229	.1175
	Dry, clear.....	.1275	.1258
Peoria.....	Dry.....	.1258	.1250
	Dry.....	.1258	.1283
	Dry, sides.....	.1375	.1433
INDIANA.			
Indianapolis.....	Dry.....	.1000	.1000
	Pickled.....	.1250	.1250
Terre Haute.....	Dry.....	.1250	.1250
	Pickled.....	.1250	.1250
IOWA.			
Des Moines.....	Pickled.....	.1083	.1025
	Pickled.....	.1000	.1000
Dubuque.....	Pickled.....	.1167	.1188
	Pickled.....	.1146	.1125
KANSAS.			
Topeka.....	Dry.....	.0931	.1000
	Dry.....	.1104	.1000
KENTUCKY.			
Louisville.....	Dry.....	.1250	.1306
	Sliced.....	.1333	.1338
LOUISIANA.			
New Orleans.....	Dry.....	.0975	.0850
	Dry.....	.1167	.1000
	Sweet, pickled.....	.1096	.1000
MAINE.			
Portland.....	Dry, clear.....	.1000	.1000
	Dry, piece.....	.1133	.1200
MARYLAND.			
Baltimore.....	Pickled, side.....	.1133	.1142
	Shoulder, whole.....	.0983	.1000
MASSACHUSETTS.			
Boston.....	Dry.....	.1200	.1200
	Dry.....	.1183	.1200
	Pickled, clear.....	.1042	.1025
Fall River.....	Clear.....	.1200	.1200
	Pickled.....	.0900	.0900
Lynn.....	Pickled.....	.0975	.0900
	Pickled.....	.1058	.1000
Malden.....	Pickled.....	.1100	.1100
	Pickled.....	.1000	.1000
Worcester.....	Dry.....	.1150	.1100
	Dry, clear.....	.1292	.1258
MICHIGAN.			
Detroit.....	Home, pickled.....	.1200	.1200
	Pickled.....	.1233	.1200
Grand Rapids.....	Dry, clear.....	.1000	.1000
	Pickled.....	.1000	.1000
MINNESOTA.			
Duluth.....	Dry.....	.1000	.1000
	Dry, clear.....	.1200	.1208
Minneapolis.....	Pickled.....	.1200	.1250
	Pickled.....	.1171	.1196
St. Paul.....	Pickled.....	.1250	.1250
	Pickled, mess.....	.1258	.1260

TABLE L.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

PORK, SALT, DRY OR PICKLED, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
MISSOURI.			
Kansas City.....	Dry.....	\$0.0767	\$0.0833
St. Louis.....	Dry.....	.0842	.0833
	Dry, clear.....	.1213	.1025
	Dry, clear.....	.1242	.1300
Butte.....	Dry.....	.1250	.1250
	Pickled.....	.1500	.1500
NEBRASKA.			
Omaha.....	Dry.....	.0903	.1000
Manchester.....	Dry.....	.0931	.1000
	Pickled.....	.1258	.1200
Jersey City.....	Pickled.....	.1000	.1000
	Pickled, belly.....	.1150	.1200
Trenton.....	Pickled, best.....	.1200	.1167
	Pickled, best.....	.1400	.1400
NEW YORK.			
Albany.....	Pickled.....	.1400	.1400
Brooklyn.....	Pickled, mess.....	.1200	.1200
	Dry.....	.1242	.1283
Buffalo.....	Pickled.....	.1600	.1600
	Pickled, belly.....	.1200	.1200
Finishing.....	Pickled, belly.....	.1200	.1200
	Pickled, belly.....	.1025	.1108
New York (a).....	Dry.....	.1400	.1400
	Dry.....	.1250	.1200
Rochester.....	Dry.....	.1402	.1400
	Dry, clear.....	.1400	.1400
Syracuse.....	Dry, clear, prime.....	.1271	.1250
	Dry, medium.....	.1600	.1600
Cincinnati.....	Pickled.....	.0925	.0983
	Pickled.....	.1200	.1083
Cleveland.....	Pickled.....	.1200	.1200
	Pickled.....	.1200	.1200
Toledo.....	Dry.....	.1250	.1250
	Sides, whole.....	.1438	.1250
OREGON.			
Portland.....	Pickled.....	.1042	.1083
Allegheny.....	Pickled.....	.1500	.1500
	Pickled.....	.1342	.1333
Philadelphia.....	Pickled.....	.1250	.1250
	Pickled, mess.....	.1350	.1250
Pittsburg.....	Dry.....	.1058	.1058
	Pickled.....	.1100	.1233
PENNSYLVANIA.			
Allegheny.....	Dry.....	.1233	.1250
Philadelphia.....	Pickled.....	.1417	.1400
	Pickled.....	.1400	.1400
Pittsburg.....	Pickled, belly.....	.1300	.1300
	Pickled, belly.....	.1500	.1500
Scranton.....	Dry.....	.1417	.1375
	Dry.....	.1467	.1483
Wilkes-Barre.....	Pickled.....	.1250	.1250
	Pickled, middlings.....	.1325	.1400
Providence.....	Pickled.....	.1250	.1250
	Pickled.....	.1125	.1250
RHODE ISLAND.			
Providence.....	Dry.....	.1250	.1225
Charleston.....	Dry.....	.1083	.1233
	Dry, sliced.....	.1200	.1308
Charleston.....	Dry, sliced.....	.1308	.1358
	Dry, sliced.....	.1250	.1208
Charleston.....	Dry, sliced.....	.1263	.1242
	Pickled, clear.....	.1500	.1333
Charleston.....	Pickled, mess.....	.1371	.1325

* Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

PORK, SALT, HAM, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
DELAWARE.			
Wilmington.....	Sliced.....	\$0.2500	\$0.2550
	Sliced.....	.1917	.1917
	Sugar-cured, smoked, sliced.....	.2000	.2000
DISTRICT OF COLUMBIA.			
Washington.....	Sliced.....	.2000	.2275
	Smoked, whole, medium.....	.1600	.1575
	Sugar-cured, sliced.....	.2000	.2000
FLORIDA.			
Jacksonville.....	Medium, whole.....	.1658	.1625
	Sliced.....	.2000	.2000
	Sliced.....	.2208	.2000
	Sliced.....	.2050	.2058
	Sugar-cured, Armour's, sliced.....	.2000	.2000
	Sugar-cured, sliced.....	.2500	.2500
GEORGIA.			
Atlanta.....	Sliced.....	.2000	.1950
	Sliced.....	.2000	.2000
	Sugar-cured, whole.....	.1533	.1533
ILLINOIS.			
Chicago.....	Smoked, sliced.....	.1633	.1600
	Smoked, whole, medium.....	.1250	.1250
	Smoked, whole, medium.....	.1100	.1000
	Smoked, whole, medium.....	.1325	.1367
	Smoked, whole, medium.....	.1400	.1417
	Smoked, whole, medium.....	.1342	.1242
Peoria.....	Sliced.....	.1604	.1621
	Sliced.....	.1650	.1800
	Sliced.....	.1683	.1692
	Sliced.....	.1750	.1808
INDIANA.			
Indianapolis.....	Sliced.....	.2000	.2500
	Sugar-cured, best, sliced.....	.2108	.2000
	Sugar-cured, best, sliced.....	.2500	.2500
Terre Haute.....	Best, sliced.....	.2000	.2000
	Sliced.....	.2000	.2000
	Sugar-cured, whole, medium.....	.1475	.1433
IOWA.			
Des Moines.....	Sliced.....	.1800	.1900
	Sliced.....	.2000	.2050
	Sliced.....	.1917	.1929
Dubuque.....	Sliced.....	.2000	.2000
	Sliced.....	.2054	.2242
	Sugar-cured, sliced.....	.1646	.1854
KANSAS.			
Topeka.....	Sliced.....	.1950	.2000
	Sliced.....	.1900	.2000
	Sliced.....	.2000	.2000
KENTUCKY.			
Louisville.....	Sliced.....	.2000	.2000
	Sliced.....	.2000	.2000
	Sliced.....	.1854	.1875
LOUISIANA.			
New Orleans.....	Dove or Swift's Premium.....	.1625	.1600
	Sliced.....	.1817	.1650
	Sugar-cured, Dove, sliced.....	.2125	.2033
	Whole, medium.....	.1563	.1500
MAINE.			
Portland.....	Sliced.....	.2000	.1917
	Sliced.....	.2000	.2000
	Sliced, medium.....	.2000	.2000
MARYLAND.			
Baltimore.....	Medium, whole.....	.1300	.1350
	Sliced.....	.2000	.2000
	Smoked, whole, 13 to 14 pounds.....	.1408	.1425
	Sugar-cured, whole.....	.1500	.1542
MASSACHUSETTS.			
Boston.....	Common, whole, 10 pounds.....	.1333	.1346
	Sliced.....	.2000	.2000
	Sliced.....	.2167	.2000
	Sliced.....	.2000	.2000
	Sliced.....	.1875	.1892

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

PORK, SALT, HAM, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
MASSACHUSETTS—concluded.			
Fall River.....	Sliced.....	\$0. 2167	\$0. 2083
	Sliced.....	.1967	.2017
	Sliced.....	.2033	.1983
Lynn.....	Sliced.....	.2342	.2292
	Sliced.....	.2467	.2242
	Sliced.....	.2500	.2500
Malden.....	Sliced.....	.2192	.2100
	Sliced.....	.2000	.2000
Worcester.....	Sliced.....	.2450	.2500
	Sliced.....	.2517	.2000
MICHIGAN.			
Detroit.....	Home-cured, sliced.....	.1400	.1433
	Home-cured, whole, medium size.....	.1200	.1217
	Honey-cured, whole, 9 to 12 pounds.....	.1442	.1467
	Medium, whole.....	.1375	.1313
	Star, half or whole, medium size.....	.1467	.1367
Grand Rapids.....	Half or whole, 10 to 14 pounds.....	.1475	.1400
	Sliced.....	.2000	.2000
	Smoked, sliced.....	.1467	.1483
MINNESOTA.			
Duluth.....	Sliced.....	.2000	.1800
	Whole.....	.1325	.1275
	Whole, medium.....	.1400	.1400
Minneapolis.....	Best, sliced.....	.1800	.1800
	Sliced.....	.1917	.1917
	Sugar-cured, sliced.....	.2000	.2000
	Whole.....	.1238	.1213
St. Paul.....	Sliced.....	.1800	.1800
	Sliced.....	.1500	.1500
	Smoked, medium, whole.....	.1267	.1308
MISSOURI.			
Kansas City.....	Armour's, best, sliced.....	.2450	.2500
	Sliced.....	.2400	.2117
	Sliced.....	.2200	.2450
St. Louis.....	Smoked, medium, sliced.....	.1850	.1833
	Smoked, medium, sliced.....	.1500	.1533
	Smoked, medium, whole, small.....	.1567	.1408
MONTANA.			
Butte.....	Sliced.....	.2000	.2000
	Sliced.....	.2500	.2500
	Sliced.....	.2000	.2000
NEBRASKA.			
Omaha.....	Sliced.....	.2000	.2050
	Sliced.....	.1950	.1933
	Sliced.....	.2017	.2067
NEW HAMPSHIRE.			
Manchester.....	Sliced.....	.2133	.2000
	Sugar-cured, medium, whole.....	.1300	.1283
	Whole, medium.....	.1242	.1250
NEW JERSEY.			
Jersey City.....	Sliced.....	.2350	.2500
	Sliced.....	.2150	.2000
	Sliced.....	.1633	.1800
Trenton.....	Sliced.....	.2500	.2500
	Sliced.....	.2000	.2000
	Sugar-cured, best, whole, 12 to 14 pounds.....	.1267	.1279
NEW YORK.			
Albany.....	Sliced.....	.2200	.2200
	Whole, medium.....	.1367	.1400
	Whole, medium.....	.1400	.1433
Brooklyn.....	Sliced.....	.1850	.1950
	Sliced.....	.2000	.2000
	Sliced.....	.2200	.2200
	Whole, medium.....	.1625	.1733
Buffalo.....	Armour's, best, sliced.....	.2000	.2000
	Medium, whole.....	.1250	.1179
	Sliced.....	.1800	.1967
	Sliced.....	.1800	.1967
	Sliced.....	.2200	.2233
Flushing.....	Sliced, best.....	.1833	.1783
	Sliced, best.....	.2000	.2000
	Sliced, medium.....	.1400	.1375
	Smoked, medium, whole.....	.1917	.1833

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

PORK, SALT, HAM, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
NEW YORK—concluded.			
New York (a)	Smoked, whole, 10 to 16 pounds.....	\$0.1725	\$0.1567
	Smoked, western, whole	.1458	.1458
	Sugar-cured, whole, 10 to 15 pounds.....	.1542	.1500
	Whole, medium.....	.2000	.1833
	Whole, medium.....	.1600	.1517
Rochester.....	Smoked, whole, small.....	.1363	.1283
	Sugar-cured, whole, medium.....	.1363	.1292
	Whole, medium.....	.1217	.1188
Syracuse.....	Sliced.....	.1800	.1800
	Sugar-cured, Swift's, best, whole, medium.....	.1583	.1667
	Whole, medium.....	.1400	.1400
OHIO.			
Cincinnati.....	Sliced.....	.2000	.2000
	Smoked, whole, medium.....	.1575	.1600
	Whole, medium.....	.1542	.1425
Cleveland.....	Sugar-cured, best, Armour's Star, whole.....	.1700	.1600
	Sugar-cured, whole.....	.1500	.1383
	Sugar-cured, whole.....	.1392	.1388
	Whole.....	.1271	.1342
Toledo.....	Sliced.....	.1800	.1800
	Sliced.....	.1800	.1800
	Sliced.....	.1917	.1917
OREGON.			
Portland.....	Sliced.....	.2000	.2000
	Sliced.....	.2000	.2000
	Sliced.....	.2000	.2000
PENNSYLVANIA.			
Allegheny.....	Sliced.....	.1667	.1750
	Sugar-cured.....	.1267	.1250
	Sugar-cured, sliced.....	.1967	.1867
Philadelphia.....	Smoked, whole, medium.....	.1575	.1525
	Smoked, whole, medium.....	.1833	.1458
	Smoked, whole, medium.....	.1433	.1467
	Smoked, whole, small.....	.1508	.1483
	Whole, medium.....	.1279	.1267
Pittsburg.....	Sliced.....	.1933	.1917
	Sliced.....	.1908	.1883
	Sliced.....	.1767	.1933
Scranton.....	Sliced.....	.2000	.2000
	Sliced.....	.2325	.2333
	Whole, medium.....	.1567	.1500
Wilkes-Barre.....	Smoked, sliced.....	.2000	.2000
	Whole.....	.1325	.1400
	Whole, medium.....	.1400	.1400
RHODE ISLAND.			
Providence.....	First grade, sliced.....	.2467	.2500
	Medium, whole.....	.1500	.1500
	Medium, whole.....	.1500	.1500
	Sliced.....	.2500	.2500
SOUTH CAROLINA.			
Charleston.....	Sliced.....	.1333	.1333
	Sugar-cured, medium, whole.....	.1608	.1617
	Whole, 6 to 8 pounds.....	.1400	.1400
SOUTH DAKOTA.			
Sioux Falls.....	Sliced.....	.2100	.2150
	Sliced.....	.2150	.2325
	Sliced.....	.1983	.2133
TENNESSEE.			
Memphis.....	Sugar-cured, whole, 12 pounds.....	.1517	.1504
	Whole.....	.1454	.1425
	Whole.....	.1533	.1583
Nashville.....	Good, sliced.....	.2000	.2008
	Sugar-cured, whole, medium.....	.1398	.1440
	Whole.....	.1313	.1350
TEXAS.			
Dallas.....	Sliced.....	.2000	.2000
	Sliced.....	.2000	.2000
	Sugar-cured, whole, medium.....	.1292	.1229
San Antonio.....	Sliced.....	.2000	.2000
	Sliced.....	.2000	.2000
	Sugar-cured, Gold Band, sliced.....	.2000	.2000

(a) Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

PORK, SALT, HAM, PER POUND—Concluded.

State and locality,	Description.	Average price.	
		1904.	1905.
UTAH.			
Salt Lake City.....	Sliced.....	\$0.2500	\$0.2500
	Sliced.....	.2000	.2000
	Sliced.....	.2000	.2000
VIRGINIA.			
Norfolk.....	Smoked, medium, sliced.....	.1800	.1833
	Smoked, whole, medium.....	.1500	.1533
	Whole, medium.....	.1525	.1508
Richmond.....	Smoked, whole.....	.1500	.1517
	Smoked, whole, medium.....	.1567	.1583
	Whole, medium.....	.1250	.1325
WASHINGTON.	Whole, medium.....	.1500	.1542
	Sliced.....	.2000	.2000
	Sliced.....	.2000	.2000
Seattle.....	Sliced.....	.2000	.2000
	Sliced.....	.2000	.2000
	Sliced.....	.2000	.2000
Tacoma.....	Sliced.....	.2000	.2000
	Sliced.....	.2000	.2000
	Sliced.....	.2000	.2000
WEST VIRGINIA.			
Wheeling.....	Sugar-cured, whole, 12 to 16 pounds.....	.1517	.1488
	Sliced.....	.2000	.2000
	Sliced.....	.2000	.2000
WISCONSIN.	Smoked, whole, medium.....	.1354	.1321
	Armour's Star, whole.....	.1550	.1700
	Layton's, smoked, whole, medium.....	.1442	.1417
Milwaukee.....	Select, whole, small, 5 to 7 pounds.....	.1429	.1617
	Smoked, whole, medium, 6 to 8 pounds ..	.1325	.1308

POTATOES, IRISH, PER PECK.

ALABAMA.			
Birmingham.....	Potatoes, Irish.....	\$0.2917	\$0.2750
	Potatoes, Irish.....	.3136	.3250
	Potatoes, Irish.....	.2792	.2875
Montgomery.....	Potatoes, Irish.....	.2542	.2667
	Potatoes, Irish.....	.2400	.2792
	Potatoes, Irish.....	.3000	.3000
ARKANSAS.			
Little Rock.....	Potatoes, Irish.....	.3167	.2458
	Potatoes, Irish.....	.3125	.2042
	Potatoes, Irish.....	.3042	.2417
CALIFORNIA.			
Los Angeles.....	Potatoes, Irish, sold by the 100 pounds ..	.3438	.2150
	Potatoes, Irish, sold by the 100 pounds ..	.2406	.2625
	Potatoes, Irish, sold by the 100 pounds ..	.2469	.2225
San Francisco.....	Potatoes, Irish, sold by the pound.....	.3813	.3000
	Potatoes, Irish, sold by the 100 pounds ..	.2625	.2625
	Potatoes, Irish, sold by the 100 pounds ..	.2625	.2625
COLORADO.			
Denver.....	Potatoes, Irish, sold by the 100 pounds ..	.2264	.1219
	Potatoes, Irish, sold by the 100 pounds ..	.1900	.1550
	Potatoes, Irish, sold by the 100 pounds ..	.2381	.1681
CONNECTICUT.			
New Haven.....	Potatoes, Irish.....	.3250	.3058
	Potatoes, Irish.....	.3067	.2958
	Potatoes, Irish.....	.2975	.3150
DELAWARE.			
Wilmington.....	Potatoes, Irish.....	.3458	.3458
	Potatoes, Irish.....	.2292	.2375
	Potatoes, Irish.....	.3208	.2658
DISTRICT OF COLUMBIA.			
Washington.....	Potatoes, Irish.....	.2708	.2500
	Potatoes, Irish.....	.3333	.2808
	Potatoes, Irish.....	.3000	.2692

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

POTATOES, IRISH, PER PECK—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
FLORIDA.			
Jacksonville.....	Potatoes, Irish.....	\$0.3125	\$0.3167
	Potatoes, Irish.....	.3000	.3000
	Potatoes, Irish.....	.3000	.2958
GEORGIA.			
Atlanta.....	Potatoes, Irish.....	.2583	.2792
	Potatoes, Irish.....	.1958	.2258
	Potatoes, Irish.....	.2283	.2158
ILLINOIS.			
Chicago.....	Potatoes, Irish.....	.2008	.1783
	Potatoes, Irish.....	.1925	.1800
	Potatoes, Irish.....	.1817	.1688
	Potatoes, Irish.....	.1800	.1592
	Potatoes, Irish.....	.1708	.1692
	Potatoes, Irish.....	.1804	.2000
Peoria.....	Potatoes, Irish.....	.2958	.2542
	Potatoes, Irish.....	.2125	.2400
	Potatoes, Irish.....	.2000	.2458
	Potatoes, Irish.....	.2292	.2458
INDIANA.			
Indianapolis.....	Potatoes, Irish.....	.2250	.2083
	Potatoes, Irish.....	.2667	.2333
	Potatoes, Irish.....	.2500	.2267
Terre Haute.....	Potatoes, Irish.....	.2708	.2333
	Potatoes, Irish.....	.2542	.2092
	Potatoes, Irish.....	.2708	.2458
IOWA.			
Des Moines.....	Potatoes, Irish.....	.1458	.2083
	Potatoes, Irish.....	.1625	.1958
Dubuque.....	Potatoes, Irish.....	.1250	.1883
	Potatoes, Irish.....	.2250	.2500
	Potatoes, Irish.....	.2208	.2458
	Potatoes, Irish.....	.2250	.2708
KANSAS.			
Topeka.....	Potatoes, Irish.....	.1842	.1700
	Potatoes, Irish.....	.1800	.1725
	Potatoes, Irish.....	.2000	.1750
KENTUCKY.			
Louisville.....	Potatoes, Irish.....	.2500	.3125
	Potatoes, Irish.....	.2563	.2229
	Potatoes, Irish.....	.2375	.2000
LOUISIANA.			
New Orleans.....	Potatoes, Irish.....	.2500	.2688
	Potatoes, Irish.....	.4167	.3500
	Potatoes, Irish, sold by the pound.....	.2750	.2750
	Potatoes, Irish, sold by the pound.....	.3750	.3063
MAINE.			
Portland.....	Potatoes, Irish.....	.2875	.2167
	Potatoes, Irish.....	.2483	.1867
	Potatoes, Irish.....	.2650	.1942
MARYLAND.			
Baltimore.....	Potatoes, Irish.....	.2500	.2500
	Potatoes, Irish.....	.2550	.2400
	Potatoes, Irish.....	.2892	.2192
	Potatoes, Irish.....	.2317	.2283
MASSACHUSETTS.			
Boston.....	Potatoes, Irish.....	.2583	.1800
	Potatoes, Irish.....	.3217	.2100
	Potatoes, Irish.....	.2717	.2583
	Potatoes, Irish.....	.2567	.1950
Fall River.....	Potatoes, Irish.....	.2925	.2925
	Potatoes, Irish.....	.3250	.3192
	Potatoes, Irish.....	.2692	.2675
Lynn.....	Potatoes, Irish.....	.2533	.1867
	Potatoes, Irish.....	.2900	.1950
	Potatoes, Irish.....	.2542	.2367
Malden.....	Potatoes, Irish.....	.2583	.1800
	Potatoes, Irish.....	.3000	.1933
Worcester.....	Potatoes, Irish.....	.2875	.2633
	Potatoes, Irish.....	.2775	.2792
	Potatoes, Irish.....	.2875	.2783

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

POTATOES, IRISH, PER PECK—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
MICHIGAN.			
Detroit.....	Potatoes, Irish.....	\$0.2217	\$0.1600
	Potatoes, Irish.....	.2433	.1575
	Potatoes, Irish.....	.2458	.1775
Grand Rapids.....	Potatoes, Irish.....	.2317	.1908
	Potatoes, Irish.....	.2342	.1683
	Potatoes, Irish.....	.2283	.1508
MINNESOTA.			
Duluth.....	Potatoes, Irish.....	.2242	.1492
	Potatoes, Irish.....	.2283	.1708
	Potatoes, Irish.....	.1667	.1383
Minneapolis.....	Potatoes, Irish.....	.2221	.1217
	Potatoes, Irish.....	.2117	.1417
	Potatoes, Irish.....	.1533	.1617
St. Paul.....	Potatoes, Irish.....	.2133	.1468
	Potatoes, Irish.....	.2367	.1225
	Potatoes, Irish.....	.2454	.1858
MISSOURI.			
Kansas City.....	Potatoes, Irish.....	.1875	.2292
	Potatoes, Irish.....	.1692	.1842
	Potatoes, Irish.....	.1688	.1750
St. Louis.....	Potatoes, Irish.....	.2217	.2158
	Potatoes, Irish.....	.2150	.2250
	Potatoes, Irish.....	.2242	.2333
	Potatoes, Irish.....	.2208	.2342
MONTANA.			
Butte.....	Potatoes, Irish, sold by the 100 pounds ..	.2338	.1681
	Potatoes, Irish, sold by the 100 pounds ..	.2375	.1694
	Potatoes, Irish, sold by the 100 pounds ..	.2431	.1656
NEBRASKA.			
Omaha.....	Potatoes, Irish.....	.1917	.1525
	Potatoes, Irish.....	.2167	.1717
	Potatoes, Irish.....	.2125	.1758
NEW HAMPSHIRE.			
Manchester.....	Potatoes, Irish.....	.2783	.2850
	Potatoes, Irish.....	.2442	.2467
	Potatoes, Irish.....	.2633	.1875
NEW JERSEY.			
Jersey City.....	Potatoes, Irish.....	.3583	.3500
	Potatoes, Irish.....	.3467	.3408
	Potatoes, Irish.....	.3533	.3500
Trenton.....	Potatoes, Irish.....	.2902	.1867
	Potatoes, Irish.....	.3550	.3250
	Potatoes, Irish.....	.3642	.2708
NEW YORK.			
Albany.....	Potatoes, Irish.....	.2542	.2625
	Potatoes, Irish.....	.2850	.3150
	Potatoes, Irish.....	.3250	.2917
Brooklyn.....	Potatoes, Irish.....	.3625	.3808
	Potatoes, Irish.....	.3333	.3508
	Potatoes, Irish.....	.2800	.2542
Buffalo.....	Potatoes, Irish.....	.2267	.2008
	Potatoes, Irish.....	.2700	.1883
	Potatoes, Irish.....	.2067	.2058
	Potatoes, Irish.....	.2108	.1950
Flushing.....	Potatoes, Irish.....	.3058	.3058
	Potatoes, Irish.....	.3500	.3667
	Potatoes, Irish.....	.3958	.3858
New York (*).....	Potatoes, Irish.....	.3500	.3458
	Potatoes, Irish.....	.5800	.6800
	Potatoes, Irish.....	.2150	.2000
	Potatoes, Irish.....	.3067	.3417
	Potatoes, Irish.....	.3400	.3250
	Potatoes, Irish, sold by the quart.....	.5600	.6067
Rochester.....	Potatoes, Irish.....	.2442	.1658
	Potatoes, Irish.....	.2325	.1775
	Potatoes, Irish.....	.2567	.1592
Syracuse.....	Potatoes, Irish.....	.2742	.1700
	Potatoes, Irish, sold by the one-half bushel.....	.2304	.1604
	Potatoes, Irish, sold by the bushel.....	.2042	.1635

* Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

POTATOES, IRISH, PER PECK—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
OHIO.			
Cincinnati.....	Potatoes, Irish.....	\$0.3042	\$0.2792
	Potatoes, Irish.....	.2250	.2333
	Potatoes, Irish.....	.2333	.2583
	Potatoes, Irish.....	.2667	.2542
Cleveland.....	Potatoes, Irish.....	.2858	.2175
	Potatoes, Irish.....	.2975	.1833
	Potatoes, Irish.....	.2683	.2050
	Potatoes, Irish.....	.2700	.1725
Toledo.....	Potatoes, Irish.....	.1867	.2092
	Potatoes, Irish.....	.2233	.1658
OREGON.			
Portland.....	Potatoes, Irish, sold by the 100 pounds..	.2175	.2188
	Potatoes, Irish, sold by the 100 pounds..	.2300	.2138
	Potatoes, Irish, sold by the 100 pounds..	.2250	.2075
PENNSYLVANIA.			
Allegheny.....	Potatoes, Irish.....	.2108	.2208
	Potatoes, Irish.....	.1883	.1867
	Potatoes, Irish.....	.2292	.2250
Philadelphia.....	Potatoes, Irish.....	.3317	.2550
	Potatoes, Irish.....	.3067	.2800
	Potatoes, Irish.....	.3783	.3092
	Potatoes, Irish.....	.3817	.3208
	Potatoes, Irish.....	.3067	.2700
	Potatoes, Irish, sold by the one-fourth peck.	.4067	.3333
	Potatoes, Irish, sold by the one-half peck..	.3467	.2600
Pittsburg.....	Potatoes, Irish.....	.2000	.2075
	Potatoes, Irish.....	.2292	.2208
	Potatoes, Irish.....	.2033	.2133
Scranton.....	Potatoes, Irish.....	.2058	.2667
	Potatoes, Irish.....	.2717	.2417
	Potatoes, Irish.....	.2442	.1892
Wilkes-Barre.....	Potatoes, Irish.....	.2608	.2375
	Potatoes, Irish.....	.2708	.1875
	Potatoes, Irish.....	.2667	.2167
RHODE ISLAND.			
Providence.....	Potatoes, Irish.....	.3042	.2958
	Potatoes, Irish.....	.2792	.2783
	Potatoes, Irish.....	.3000	.2942
SOUTH CAROLINA.			
Charleston.....	Potatoes, Irish.....	.3875	.3900
	Potatoes, Irish.....	.3125	.2708
	Potatoes, Irish.....	.3500	.2892
SOUTH DAKOTA.			
Sioux Falls.....	Potatoes, Irish.....	.1750	.1667
	Potatoes, Irish.....	.1875	.1229
	Potatoes, Irish.....	.1725	.1479
TENNESSEE.			
Memphis.....	Potatoes, Irish.....	.2083	.2333
	Potatoes, Irish.....	.2733	.2625
	Potatoes, Irish.....	.2375	.2417
Nashville.....	Potatoes, Irish.....	.2083	.2083
	Potatoes, Irish.....	.3042	.2960
	Potatoes, Irish.....	.2742	.2550
TEXAS.			
Dallas.....	Potatoes, Irish.....	.3083	.2458
	Potatoes, Irish.....	.2750	.2333
	Potatoes, Irish.....	.2270	.2625
San Antonio.....	Potatoes, Irish.....	.3458	.2917
	Potatoes, Irish.....	.3333	.3333
	Potatoes, Irish.....	.2958	.2958
UTAH.			
Salt Lake City.....	Potatoes, Irish.....	.3167	.1917
	Potatoes, Irish.....	.3583	.2250
	Potatoes, Irish.....	.3292	.2792
VIRGINIA.			
Norfolk.....	Potatoes, Irish.....	.2583	.2042
	Potatoes, Irish.....	.2917	.2625
	Potatoes, Irish.....	.2583	.2333
Richmond.....	Potatoes, Irish.....	.3167	.2333
	Potatoes, Irish.....	.2500	.2500
	Potatoes, Irish.....	.2625	.2250

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

POTATOES, IRISH, PER PECK—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
WASHINGTON.			
Seattle.....	Potatoes, Irish.....	\$0.2083	\$0.2500
	Potatoes, Irish.....	.2083	.2242
	Potatoes, Irish.....	.2000	.2792
Tacoma.....	Potatoes, Irish, sold by the 100 pounds..	.2438	.1956
	Potatoes, Irish, sold by the 100 pounds..	.2156	.2288
WEST VIRGINIA.			
Wheeling.....	Potatoes, Irish.....	.2542	.1675
	Potatoes, Irish.....	.2433	.1758
	Potatoes, Irish.....	.2583	.1917
WISCONSIN.			
Milwaukee.....	Potatoes, Irish.....	.1667	.2075
	Potatoes, Irish.....	.1483	.1550
	Potatoes, Irish.....	.2042	.2208

PRUNES, PER POUND.

ALABAMA.			
Birmingham.....	California, best, 30s to 40s.....	\$0.1250	\$0.1250
	60s to 70s.....	.1000	.1000
Montgomery.....	California, 40s to 50s.....	.0750	.1000
	Medium, 60s to 70s.....	.0833	.0833
ARKANSAS.			
Little Rock.....	60s to 70s.....	.1000	.0967
	60s to 70s.....	.0833	.0833
CALIFORNIA.			
Los Angeles.....	French, northern, 60s to 70s.....	.0600	.0617
	60s to 70s.....	.0500	.0525
	60s to 70s.....	.0458	.0452
San Francisco.....	60s to 70s.....	.0527	.0500
	70s to 80s.....	.0500	.0500
	70s to 80s.....	.0500	.0500
COLORADO.			
Denver.....	60s to 70s.....	.1000	.1063
	60s to 70s.....	.0800	.0867
CONNECTICUT.			
New Haven.....	60s to 70s.....	.1000	.1000
	60s to 70s.....	.0833	.0833
	60s to 70s.....	.0833	.1000
DELAWARE.			
Wilmington.....	60s to 70s.....	.0933	.0850
	60s to 70s.....	.0700	.0700
DISTRICT OF COLUMBIA.			
Washington.....	60s to 70s.....	.1000	.1000
	60s to 70s.....	.1000	.1000
	60s to 70s.....	.1000	.1000
FLORIDA.			
Jacksonville.....	60s to 70s.....	.1250	.1250
	60s to 70s.....	.1000	.1000
	60s to 70s, good.....	.0800	.0800
GEORGIA.			
Atlanta.....	60s to 70s.....	.1000	.1000
	60s to 70s.....	.0833	.0833
ILLINOIS.			
Chicago.....	California, 60s to 70s.....	.0850	.0863
	California, 80s to 90s.....	.0750	.0750
	California, 80s to 90s.....	.0750	.0750
Peoria.....	60s.....	.1000	.1000
	60s to 70s.....	.0775	.0800
	60s to 70s.....	.1000	.1000
INDIANA.			
Indianapolis.....	60s to 70s.....	.0833	.0833
	60s to 70s.....	.0833	.0800
	60s to 70s.....	.1000	.1000
Terre Haute.....	60s to 70s.....	.1000	.1000

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

PRUNES, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
IOWA.			
Des Moines.....	60s to 70s.....	\$0.1000	\$0.1000
	60s to 70s.....	.1000	.1000
Dubuque.....	60s to 70s.....	.0931	.0933
	60s to 70s.....	.0800	.0800
KANSAS.			
Topeka.....	60s to 70s.....	.0642	.0833
	60s to 70s.....	.0811	.0833
KENTUCKY.			
Louisville.....	60s to 70s.....	.0800	.0800
	60s to 70s, sold in 25-cent lots.....	.0796	.0861
LOUISIANA.			
New Orleans.....	60s to 70s.....	.1000	.1000
	60s to 70s.....	.0600	.0600
	60s to 70s.....	.0750	.1000
MAINE.			
Portland.....	California, 50s to 60s.....	.1000	.1000
	California, 50s to 60s.....	.1167	.1033
MARYLAND.			
Baltimore.....	60s to 70s.....	.0700	.0725
	60s to 70s.....	.1000	.1000
	California, 60s to 70s.....	.0800	.0800
MASSACHUSETTS.			
Boston.....	California, 60s to 70s.....	.0700	.0708
	California, 60s to 70s.....	.0800	.0800
	Santa Clara, No. 20, 60s to 70s.....	.0700	.0750
Fall River.....	60s to 70s.....	.0800	.0600
	60s to 70s.....	.0700	.0700
Lynn.....	Santa Clara, 60s to 70s.....	.0900	.1000
	70s to 80s.....	.0700	.0725
Malden.....	California, 60s to 70s, sold in 2-pound lots.....	.0667	.0758
	Santa Clara, 60s to 70s.....	.1000	.1000
Worcester.....	60s to 70s.....	.0900	.0900
	Best, 40s to 50s.....	.1200	.1200
	Best, 60s to 70s.....	.1300	.1300
MICHIGAN.			
Detroit.....	California, 60s to 70s, sold in 3-pound lots.....	.0833	.0833
	60s.....	.0800	.0825
Grand Rapids.....	50s to 60s.....	.1000	.1000
	60s to 70s.....	.1000	.1000
MINNESOTA.			
Duluth.....	60s to 70s.....	.0700	.0700
	60s to 70s.....	.0767	.0900
Minneapolis.....	California, 60s to 70s.....	.1000	.1000
	California medium, 50s to 60s.....	.0800	.1000
	California, staple.....	.1000	.1000
	California, staple.....	.0700	.0758
St. Paul.....	50s to 60s, sold in 3-pound lots.....	.0833	.0833
	California, staple.....	.0800	.0800
MISSOURI.			
Kansas City.....	60s to 70s.....	.0500	.0500
	60s to 70s.....	.0600	.0600
St. Louis.....	California, 80s to 90s.....	.0600	.0600
	80s to 90s.....	.0600	.0600
	80s to 90s.....	.0658	.0642
MONTANA.			
Butte.....	60s to 70s.....	.0800	.0800
	60s to 70s.....	.0800	.0800
NEBRASKA.			
Omaha.....	60s to 70s.....	.0600	.0600
	60s to 70s.....	.1000	.1000
NEW HAMPSHIRE.			
Manchester.....	60s to 70s.....	.0813	.0725
	60s to 70s.....	.0875	.0750
NEW JERSEY.			
Jersey City.....	60s to 70s.....	.0800	.0800
	Santa Clara, 60s to 70s.....	.0700	.0742
Trenton.....	California, 60s to 70s, sold in 3-pound lots.....	.0833	.0833
	60s to 70s.....	.1000	.1000

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

PRUNES, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
NEW YORK.			
Albany.....	40s to 50s.....	\$0.1000	\$0.1000
	50s to 60s.....	.0800	.0892
Brooklyn.....	California, 50s to 60s.....	.1000	.1000
	60s to 70s.....	.0800	.0800
Buffalo.....	60s to 70s, sold in boxes.....	.0800	.0800
	Santa Clara Express, 60s to 70s.....	.0700	
Flushing.....	California, choice, 60s to 70s.....	.0800	.0800
	40s to 50s.....	.1200	.1200
New York (a).....	California, 45s to 55s.....	.1167	.1200
	California, 50s to 60s.....	.0783	.0642
	California, 50s to 60s.....	.0875	.0875
	California, choice, 50s to 60s.....	.1000	.1000
	California, good, 50s to 60s.....	.1000	.1000
Rochester.....	50s to 60s.....	.1200	.1200
	60s to 70s.....	.0800	.0800
	60s to 70s.....	.1000	.1000
Syracuse.....	60s to 70s.....	.0833	.0833
	60s to 70s.....	.0800	.0800
OHIO.			
Cincinnati.....	60s to 70s.....	.0833	.0833
	60s to 70s.....	.0800	.0800
	60s to 70s.....	.1000	.1000
Cleveland.....	No. 2.....	.1000	.1000
	No. 2.....	.1300	.1300
	50s to 60s.....	.1000	.1000
Toledo.....	60s to 70s.....	.0800	.0800
	60s to 70s.....	.0700	.0800
OREGON.			
Portland.....	60s to 70s.....	.0500	.0575
	60s to 70s.....	.0400	.0575
PENNSYLVANIA.			
Allegheny.....	60s to 70s.....	.1000	.1000
	60s to 70s.....	.0800	.0800
	60s to 70s.....	.1000	.1000
Philadelphia.....	60s to 70s.....	.0700	.0600
	60s to 70s.....	.0900	.0900
	60s to 70s, sold in 4-pound lots.....	.0625	.0625
Pittsburg.....	60s to 70s.....	.1000	.1000
	60s to 70s.....	.1000	.1000
Scranton.....	60s to 70s.....	.1000	.1000
	60s to 70s.....	.0800	.0700
Wilkes-Barre.....	60s to 70s.....	.1000	.1000
	60s to 70s.....	.0900	.0900
RHODE ISLAND.			
Providence.....	60s to 70s.....	.0733	.1000
	60s to 70s.....	.1000	.1000
SOUTH CAROLINA.			
Charleston.....	60s to 70s.....	.1000	.1000
	60s to 70s.....	.1000	.1000
SOUTH DAKOTA.			
Sioux Falls.....	60s to 70s.....	.0861	.1000
	60s to 70s.....	.0771	.0833
TENNESSEE.			
Memphis.....	40s to 50s.....	.1000	.1000
	60s to 70s.....	.0800	.0800
Nashville.....	60s to 70s, sold in 3-pound lots.....	.0833	.0833
	70s to 80s.....	.0700	.0800
TEXAS.			
Dallas.....	60s to 70s.....	.1000	.1000
	60s to 70s.....	.1000	.0944
San Antonio.....	60s to 70s.....	.0833	.0961
	60s to 70s.....	.0833	.0833
UTAH.			
Salt Lake City.....	60s to 70s.....	.0700	.0700
	60s to 70s.....	.0833	.0833
VIRGINIA.			
Norfolk.....	60s to 70s.....	.1000	.1000
	60s to 70s.....	.0800	.0800
Richmond.....	40s to 50s.....	.1000	.1000
	60s to 70s.....	.1000	.1000

a Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

PRUNES, PER POUND—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
WASHINGTON.			
Seattle.....	60s to 70s.....	\$0.0600	\$0.0764
	French, 60s to 70s.....	.0500	.0517
	Italian, 60s to 70s.....	.0600	.0600
Tacoma.....	60s to 70s.....	.0625	.0660
	Italian, 60s to 70s.....	.0833	.0833
WEST VIRGINIA.			
Wheeling.....	60s to 70s.....	.0833	.1000
	60s to 70s.....	.0833	.0833
WISCONSIN.			
Milwaukee.....	60s to 70s.....	.0500	.0600
	60s to 70s.....	.0800	.1000

RICE, PER POUND.

ALABAMA.			
Birmingham.....	Louisiana, head.....	\$0.0833	\$0.0833
	Louisiana, head, best.....	.0800	.0800
Montgomery.....	Carolina, head.....	.0667	.0667
	Louisiana, head.....	.0738	.0733
ARKANSAS.			
Little Rock.....	Louisiana, head.....	.1000	.0872
	Louisiana, head.....	.0833	.0833
CALIFORNIA.			
Los Angeles.....	Carolina, head, medium.....	.0800	.0800
	Louisiana, head, medium.....	.0800	.0800
San Francisco.....	Carolina, head, best.....	.1000	.1000
	Carolina, head, medium.....	.0800	.0800
	Japan, medium.....	.0500	.0500
	Louisiana head, best.....	.0833	.0833
	Sandwich Islands, head.....	.0600	.0600
	Sandwich Islands, head.....	.0600	.0600
COLORADO.			
Denver.....	Carolina, head.....	.0900	.0925
	Japan, head, fancy, sold in 3-pound lots..	.0833	.0833
CONNECTICUT.			
New Haven.....	Carolina, head.....	.0800	.0900
	South Carolina, head.....	.1000	.1000
DELAWARE.			
Wilmington.....	Carolina, head, choice.....	.1000	.1000
	North Carolina or Louisiana, head.....	.1000	.1000
DISTRICT OF COLUMBIA.			
Washington.....	Carolina, head.....	.0900	.0900
	North Carolina, head, best.....	.1000	.1000
	North Carolina, head, best.....	.1000	.1000
FLORIDA.			
Jacksonville.....	Carolina, head.....	.0800	.0800
	Carolina, head.....	.0800	.0833
	Japan, broken.....	.0400	.0508
GEORGIA.			
Atlanta.....	Carolina, head.....	.0750	.0750
	Louisiana, head, best.....	.0833	.0833
	Louisiana, head.....	.0722	.0733
ILLINOIS.			
Chicago.....	Louisiana, broken, good.....	.0700	.0800
	Louisiana, broken, good.....	.0600	.0650
	Louisiana, head.....	.0900	.0900
	Louisiana, head.....	.0900	.0950
	Louisiana, head.....	.0900	.1000
Peoria.....	Carolina, head.....	.0800	.0750
	Louisiana, head.....	.0700	.0600
	Louisiana, head.....	.1000	.1000
INDIANA.			
Indianapolis.....	Carolina, head, choice.....	.1000	.1000
	Carolina, head, choice.....	.1000	.1000
Terre Haute.....	Carolina, head, best.....	.1000	.1000
	Carolina, head, best.....	.0833	.0833

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

RICE, PER POUND—Continued.

State and locality.	Description	Average price.	
		1904.	1905.
IOWA.			
Des Moines.....	Carolina, head.....	\$0.1000	\$0.1000
	Carolina, head.....	.0800	.0800
Dubuque.....	Carolina, head.....	.0833	.0833
	Carolina, head.....	.0800	.0800
	Carolina, head.....	.0833	.0833
KANSAS.			
Topeka.....	Carolina, head.....	.1000	.1000
	Carolina, head.....	.0833	.0833
KENTUCKY.			
Louisville.....	Carolina, head.....	.0750	.0764
	North Carolina, head.....	.0944	.0917
LOUISIANA.			
New Orleans.....	Louisiana, head.....	.0750	.0750
	Louisiana, head, extra, fancy.....	.0750	.0750
	Louisiana, head, medium.....	.0425	.0367
MAINE.			
Portland.....	Carolina, head.....	.0900	.0900
	Carolina, head.....	.1000	.1000
MARYLAND.			
Baltimore.....	Louisiana, head.....	.0700	.0650
	Louisiana, head.....	.0800	.0800
	Louisiana, head.....	.0800	.0700
	Louisiana, head.....	.0750	.0750
MASSACHUSETTS.			
Boston.....	Carolina, head.....	.0900	.0900
	Carolina, head.....	.0738	.0717
	Carolina, head.....	.0800	.0817
Fall River.....	Carolina, head.....	.0883	.0900
	Carolina, head, best.....	.1000	.1000
Lynn.....	Carolina, head.....	.0900	.0908
	Carolina, head, medium.....	.0800	.0800
Malden.....	Carolina, head.....	.0850	.0900
	South Carolina, best.....	.1000	.1000
Worcester.....	Carolina, head.....	.0900	.0900
	Carolina, head, prime.....	.0900	.0900
MICHIGAN.			
Detroit.....	Japan, head.....	.0600	.0650
	Louisiana, head.....	.0842	.0833
Grand Rapids.....	Carolina, head.....	.1000	.1000
	Carolina, head.....	.1000	.1000
	Carolina, head, best.....	.1000	.0900
MINNESOTA.			
Duluth.....	Carolina, head.....	.0933	.0933
	Carolina, head, choice.....	.1000	.1000
Minneapolis.....	Carolina, best.....	.1000	.1000
	Carolina, choice.....	.0908	.0733
	Carolina, head, best.....	.0733	.0800
St. Paul.....	Japan.....	.0800	.0800
	Japan, best.....	.0800	.0800
MISSOURI.			
Kansas City.....	Carolina, head.....	.1000	.1000
	Carolina, head.....	.1000	.1000
St. Louis.....	Louisiana, head.....	.1000	.1000
	Louisiana, head.....	.1000	.1000
	Louisiana, head.....	.1000	.1000
MONTANA.			
Butte.....	Carolina, head.....	.1000	.1000
	Carolina, head.....	.1000	.1000
NEBRASKA.			
Omaha.....	Carolina, head.....	.1000	.1000
	Carolina, head.....	.0750	.0833
NEW HAMPSHIRE.			
Manchester.....	Carolina, head.....	.0800	.0817
	Carolina, head, best.....	.0850	.0800
NEW JERSEY.			
Jersey City.....	Carolina, head.....	.0800	.0800
	Carolina, head.....	.1000	.1000
Trenton.....	Carolina, head.....	.0800	.0800
	Carolina, head, best.....	.0950	.0800

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

RICE, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
NEW YORK. *			
Albany.....	Carolina, head.....	\$0.0800	\$0.0800
	Carolina, head.....	.0900	.0900
Brooklyn.....	Carolina, head.....	.0800	.0800
	Carolina, head.....	.0800	.0800
Buffalo.....	Carolina, head, best.....	.0900	.0900
	Carolina, head, best.....	.0800	.0800
	Carolina, head, best.....	.0958	.1000
Flushing.....	Carolina, head.....	.1000	.1000
	North Carolina, head.....	.1000	.1000
New York (a).....	Carolina, head.....	.0900	.0900
	Carolina, head.....	.0800	.0817
	Louisiana, head.....	.0758	.0792
	North Carolina, head.....	.0867	.0867
	North Carolina, head, good.....	.0800	.0800
Rochester.....	Carolina, head, best.....	.0800	.0800
	Carolina, head, best.....	.1000	.1000
	North Carolina, head.....	.0800	.0800
Syracuse.....	Carolina, head.....	.1000	.1000
	Japan, head, best.....	.0800	.0800
OHIO.			
Cincinnati.....	Carolina, head.....	.0800	.0800
	Carolina, head.....	.0900	.0900
	Carolina, head, best.....	.0800	.0900
Cleveland.....	North Carolina, head.....	.0883	.0900
	South Carolina, head.....	.0800	.0800
	South Carolina, head.....	.0600	.0600
	South Carolina, head, best.....	.0800	.0842
Toledo.....	Carolina, head.....	.0700	.0700
	Carolina, head.....	.0750	.0867
OREGON.			
Portland.....	Louisiana, head.....	.0750	.0683
	Louisiana, head.....	.0675	.0883
PENNSYLVANIA.			
Allegheny.....	Carolina, head.....	.0900	.0900
	South Carolina, medium.....	.0900	.0900
Philadelphia.....	Carolina, head.....	.0800	.0800
	Carolina, head.....	.0825	.1000
	Carolina, head.....	.0800	.0800
	Carolina, head, prime.....	.0900	.0900
	Carolina, head, prime.....	.0833	.0844
	Carolina, head, sold in 3-pound lots.....	.0833	.0833
Pittsburg.....	Carolina, head.....	.1000	.1000
	Carolina, head.....	.0900	.0900
Scranton.....	Carolina, head.....	.1000	.1083
	Carolina, head.....	.1000	.1000
Wilkes-Barre.....	Carolina, head.....	.0800	.0800
	South Carolina, head, No. 1.....	.1000	.0800
RHODE ISLAND.			
Providence.....	Carolina, head.....	.1000	.1000
	North Carolina, head.....	.0800	.0800
SOUTH CAROLINA.			
Charleston.....	Carolina, head.....	.0400	.0417
	Carolina, head, best.....	.0500	.0542
SOUTH DAKOTA.			
Sioux Falls.....	Carolina, head.....	.0833	.0833
	Carolina, head, best.....	.0833	.0833
TENNESSEE.			
Memphis.....	Louisiana, head, best.....	.0833	.0833
	Louisiana, medium.....	.0833	.0833
	South Carolina, head, best.....	.0764	.0715
Nashville.....	Carolina, head.....	.0833	.0833
	Louisiana, head.....	.1000	.1000
TEXAS.			
Dallas.....	Domestic, head, good.....	.0925	.0808
	Louisiana, head.....	.1000	.1000
San Antonio.....	Louisiana, head.....	.0600	.0700
	Louisiana, head.....	.0925	.0700
UTAH.			
Salt Lake City.....	Japan, head.....	.0600	.0600
	Japan, head.....	.0729	.0625

* Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

RICE, PER POUND—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
VIRGINIA.			
Norfolk.....	Carolina, head.....	\$0.0800	\$0.0800
	Carolina, head.....	.0800	.0808
Richmond.....	Carolina, head.....	.0800	.0800
	Carolina, head.....	.0800	.0800
	Carolina, head.....	.0800	.0800
WASHINGTON.			
Seattle.....	Carolina, head.....	.1000	.1000
	Japan, head.....	.0700	.0700
Tacoma.....	Carolina, head.....	.0833	.0833
	Japan, No. 1.....	.0517	.0517
WEST VIRGINIA.			
Wheeling.....	Carolina, head.....	.0833	.0833
	Louisiana, head.....	.0833	.0833
WISCONSIN.			
Milwaukee.....	Carolina, head.....	.0900	.0900
	Carolina, head.....	.0719	.0892
	Japan, head.....	.0400	.0533

SUGAR, PER POUND.

ALABAMA.			
Birmingham.....	Granulated.....	\$0.0571	\$0.0560
	Granulated.....	.0563	.0579
	Granulated.....	.0581	.0599
Montgomery.....	Granulated.....	.0608	.0600
	Granulated.....	.0625	.0579
	Granulated.....	.0500	.0500
ARKANSAS.			
Little Rock.....	Granulated.....	.0602	.0581
	Granulated.....	.0606	.0642
	Granulated.....	.0667	.0625
CALIFORNIA.			
Los Angeles.....	Granulated, sold in \$1 lots.....	.0635	.0603
	Granulated, sold in \$1 lots.....	.0635	.0593
	Granulated, sold in \$1 lots.....	.0606	.0574
San Francisco.....	Granulated, sold in \$1 lots.....	.0577	.0559
	Granulated, sold in \$1 lots.....	.0569	.0561
	Granulated, sold in \$1 lots.....	.0536	.0541
	Granulated, sold in \$1 lots.....	.0569	.0554
COLORADO.			
Denver.....	Granulated, sold in \$1 lots.....	.0625	.0649
	Granulated, sold in \$1 lots.....	.0625	.0649
	Granulated, sold in \$1 lots.....	.0628	.0649
CONNECTICUT.			
New Haven.....	Granulated.....	.0600	.0600
	Granulated.....	.0650	.0650
	Granulated.....	.0600	.0667
DELAWARE.			
Wilmington.....	Granulated.....	.0550	.0533
	Granulated.....	.0600	.0583
	Granulated.....	.0571	.0583
DISTRICT OF COLUMBIA.			
Washington.....	Granulated.....	.0529	.0613
	Granulated.....	.0521	.0585
	Granulated.....	.0554	.0625
FLORIDA.			
Jacksonville.....	Granulated.....	.0613	.0585
	Granulated.....	.0604	.0600
	Granulated.....	.0600	.0600
GEORGIA.			
Atlanta.....	Granulated.....	.0550	.0550
	Granulated.....	.0567	.0571
	Granulated.....	.0579	.0589
ILLINOIS.			
Chicago.....	Granulated.....	.0533	.0575
	Granulated.....	.0554	.0538
	Granulated.....	.0517	.0594
	Granulated.....	.0558	.0600
	Granulated.....	.0550	.0571

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

SUGAR, PER POUND—Continued.

State and locality.	Description.	Average price	
		1904.	1905.
ILLINOIS—concluded.			
Peoria.....	Granulated.....	\$0.0646	\$0.0621
	Granulated.....	.0658	.0625
	Granulated.....	.0683	.0633
	Granulated.....	.0621	.0600
INDIANA.			
Indianapolis.....	Granulated.....	.0608	.0600
	Granulated.....	.0646	.0625
	Granulated.....	.0604	.0533
Terre Haute.....	Granulated.....	.0603	.0567
	Granulated.....	.0565	.0558
	Granulated.....	.0579	.0642
IOWA.			
Des Moines.....	Granulated.....	.0600	.0625
	Granulated.....	.0625	.0615
	Granulated.....	.0613	.0600
Dubuque.....	Granulated.....	.0675	.0615
	Granulated.....	.0721	.0735
	Granulated.....	.0625	.0585
KANSAS.			
Topeka.....	Granulated.....	.0615	.0606
	Granulated.....	.0617	.0608
	Granulated.....	.0625	.0619
KENTUCKY.			
Louisville.....	Granulated.....	.0617	.0558
	Granulated, sold in 20-pound lots.....	.0541	.0620
	Granulated, sold in \$1 lots.....	.0538	.0543
LOUISIANA.			
New Orleans.....	Granulated.....	.0592	.0700
	Granulated.....	.0521	.0517
	Granulated.....	.0538	.0600
	Granulated.....	.0592	.0579
MAINE.			
Portland.....	Granulated.....	.0613	.0654
	Granulated.....	.0583	.0608
	Granulated.....	.0592	.0646
MARYLAND.			
Baltimore.....	Granulated.....	.0525	.0571
	Granulated.....	.0550	.0550
	Granulated.....	.0533	.0571
	Granulated.....	.0525	.0513
MASSACHUSETTS.			
Boston.....	Granulated.....	.0563	.0600
	Granulated.....	.0538	.0596
	Granulated.....	.0554	.0617
	Granulated.....	.0538	.0600
Fall River.....	Granulated.....	.0558	.0567
	Granulated.....	.0529	.0521
	Granulated, sold in \$1 lots.....	.0521	.0508
Lynn.....	Granulated.....	.0538	.0592
	Granulated.....	.0575	.0604
	Granulated.....	.0571	.0567
Malden.....	Granulated.....	.0542	.0592
	Granulated, sold in 2-pound lots.....	.0533	.0592
Worcester.....	Granulated.....	.0583	.0546
	Granulated.....	.0583	.0588
	Granulated.....	.0542	.0600
MICHIGAN.			
Detroit.....	Granulated.....	.0533	.0590
	Granulated.....	.0538	.0617
	Granulated.....	.0546	.0600
	Granulated, sold in \$1 lots.....	.0519	.0580
Grand Rapids.....	Granulated.....	.0534	.0633
	Granulated.....	.0575	.0650
	Granulated.....	.0571	.0658
MINNESOTA.			
Duluth.....	Granulated, sold in \$1 lots.....	.0637	.0680
	Granulated, sold in \$1 lots.....	.0637	.0681
	Granulated, sold in \$1 lots.....	.0609	.0622
Minneapolis.....	Granulated, sold in \$1 lots.....	.0642	.0638
	Granulated, sold in \$1 lots.....	.0625	.0638
	Granulated, sold in \$1 lots.....	.0565	.0536
	Granulated, sold in \$1 lots.....	.0597	.0638
St. Paul.....	Granulated, sold in \$1 lots.....	.0579	.0585

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

SUGAR, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
MISSOURI.			
Kansas City.....	Granulated.....	\$0.0617	\$0.0558
	Granulated.....	.0567	.0544
	Granulated.....	.0577	.0563
St. Louis.....	Granulated.....	.0588	.0633
	Granulated.....	.0583	.0617
	Granulated.....	.0592	.0642
	Granulated.....	.0592	.0642
MONTANA.			
Butte.....	Granulated, sold in 11 lots.....	.0743	.0787
	Granulated, sold in 11 lots.....	.0748	.0782
	Granulated, sold in 11 lots.....	.0743	.0787
NEBRASKA.			
Omaha.....	Granulated.....	.0650	.0619
	Granulated.....	.0633	.0583
	Granulated.....	.0638	.0623
NEW HAMPSHIRE.			
Manchester.....	Granulated.....	.0700	.0625
	Granulated.....	.0600	.0575
	Granulated.....	.0596	.0596
NEW JERSEY.			
Jersey City.....	Granulated.....	.0613	.0621
	Granulated.....	.0579	.0567
	Granulated.....	.0575	.0604
Trenton.....	Granulated.....	.0542	.0613
	Granulated.....	.0558	.0575
	Granulated.....	.0538	.0608
NEW YORK.			
Albany.....	Granulated.....	.0559	.0559
	Granulated.....	.0600	.0538
	Granulated.....	.0554	.0554
Brooklyn.....	Granulated.....	.0583	.0550
	Granulated.....	.0554	.0588
	Granulated.....	.0567	.0583
Buffalo.....	Granulated.....	.0533	.0604
	Granulated.....	.0529	.0613
	Granulated.....	.0538	.0617
	Granulated.....	.0554	.0567
	Granulated.....	.0563	.0621
Flushing.....	Granulated.....	.0554	.0579
	Granulated, sold in 31-pound lots.....	.0533	.0614
	Granulated, sold in 31-pound lots.....	.0581	.0632
New York (a).....	Granulated.....	.0563	.0580
	Granulated.....	.0600	.0567
	Granulated.....	.0558	.0527
	Granulated.....	.0608	.0600
	Granulated.....	.0529	.0543
Rochester.....	Granulated.....	.0563	.0617
	Granulated.....	.0571	.0642
	Granulated.....	.0567	.0621
Syracuse.....	Granulated.....	.0563	.0600
	Granulated.....	.0567	.0629
	Granulated, sold in 10-pound lots.....	.0621	.0642
OHIO.			
Cincinnati.....	Granulated.....	.0538	.0567
	Granulated.....	.0558	.0560
	Granulated.....	.0521	.0500
	Granulated.....	.0596	.0558
Cleveland.....	Granulated.....	.0604	.0583
	Granulated.....	.0588	.0625
	Granulated.....	.0583	.0625
	Granulated.....	.0579	.0625
Toledo.....	Granulated.....	.0621	.0617
	Granulated.....	.0600	.0613
	Granulated.....	.0569	.0513
OREGON.			
Portland.....	Granulated, sold in 11 lots.....	.0646	.0667
	Granulated, sold in 11 lots.....	.0653	.0667
	Granulated, sold in 11 lots.....	.0684	.0647

a Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

SUGAR, PER POUND—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
PENNSYLVANIA.			
Allegheny.....	Granulated.....	\$0.0608	\$0.0600
	Granulated.....	.0617	.0600
Philadelphia.....	Granulated.....	.0608	.0600
	Granulated.....	.0558	.0563
	Granulated.....	.0521	.0575
	Granulated.....	.0546	.0525
	Granulated.....	.0567	.0536
	Granulated.....	.0529	.0525
	Granulated.....	.0538	.0608
	Granulated.....	.0521	.0583
Pittsburg.....	Granulated.....	.0554	.0538
	Granulated.....	.0600	.0600
	Granulated.....	.0608	.0700
	Granulated.....	.0600	.0600
Scranton.....	Granulated.....	.0600	.0600
	Granulated.....	.0608	.0658
	Granulated.....	.0575	.0600
	Granulated.....	.0600	.0600
Wilkes-Barre.....	Granulated.....	.0608	.0650
	Granulated, sold in \$1 lots.....	.0556	.0556
RHODE ISLAND.			
Providence.....	Granulated.....	.0667	.0700
	Granulated.....	.0625	.0617
	Granulated.....	.0658	.0642
SOUTH CAROLINA.			
Charleston.....	Granulated.....	.0546	.0500
	Granulated.....	.0550	.0533
	Granulated.....	.0525	.0542
SOUTH DAKOTA.			
Sioux Falls.....	Granulated.....	.0654	.0606
	Granulated.....	.0650	.0604
	Granulated.....	.0650	.0613
TENNESSEE.			
Memphis.....	Granulated.....	.0617	.0558
	Granulated.....	.0583	.0583
	Granulated.....	.0633	.0600
	Granulated, sold in \$1 lots.....	.0566	.0590
Nashville.....	Granulated, sold in \$1 lots.....	.0572	.0541
	Granulated, sold in \$1 lots.....	.0534	.0534
TEXAS.			
Dallas.....	Granulated.....	.0658	.0685
	Granulated.....	.0648	.0669
	Granulated.....	.0610	.0630
	Granulated.....	.0577	.0585
San Antonio.....	Granulated.....	.0585	.0575
	Granulated.....	.0646	.0646
UTAH.			
Salt Lake City.....	Granulated, sold in \$1 lots.....	.0691	.0690
	Granulated, sold in \$1 lots.....	.0702	.0686
	Granulated, sold in \$1 lots.....	.0702	.0686
VIRGINIA.			
Norfolk.....	Granulated.....	.0554	.0502
	Granulated.....	.0554	.0502
	Granulated.....	.0538	.0608
	Granulated.....	.0538	.0617
Richmond.....	Granulated.....	.0554	.0608
	Granulated.....	.0510	.0563
WASHINGTON.			
Seattle.....	Granulated.....	.0619	.0590
	Granulated, sold in \$1 lots.....	.0656	.0667
	Granulated, sold in \$1 lots.....	.0652	.0675
	Granulated, sold in \$1 lots.....	.0645	.0641
Tacoma.....	Granulated, sold in \$1 lots.....	.0662	.0635
	Granulated, sold in \$1 lots.....	.0674	.0625
WEST VIRGINIA.			
Wheeling.....	Granulated.....	.0567	.0650
	Granulated.....	.0583	.0600
	Granulated.....	.0600	.0600
WISCONSIN.			
Milwaukee.....	Granulated.....	.0621	.0613
	Granulated.....	.0529	.0498
	Granulated.....	.0573	.0581
	Granulated.....	.0617	.0654

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

TEA, PER POUND.

State and locality.	Description.	Average price.	
		1904.	1905.
ALABAMA.			
Birmingham.....	English breakfast, medium.....	\$0.6000	\$0.6000
Montgomery.....	English breakfast, medium.....	.5000	.5000
	English breakfast and gunpowder.....	.5000	.5000
	English breakfast, oolong, and gunpowder.....	.8000	.8000
ARKANSAS.			
Little Rock.....	Oolong and imperial.....	.5000	.5000
	Oolong, Ceylon, young hyson, and gunpowder.....	.7500	.7500
CALIFORNIA.			
Los Angeles.....	Gunpowder, fine.....	.5000	.5000
San Francisco.....	Japan, medium.....	.5000	.5000
	Ceylon.....	.5000	.5000
	Japan.....	.5000	.5000
	Oolong and English breakfast.....	.5000	.5000
	Oolong, fine, No. 4.....	.5000	.5000
COLORADO.			
Denver.....	English breakfast.....	.6000	.6000
	Oolong, medium.....	.3500	.3500
CONNECTICUT.			
New Haven.....	Oolong, medium.....	.5000	.5000
	Oolong, medium.....	.5000	.5000
DELAWARE.			
Wilmington.....	Imperial, medium.....	.6000	.6000
	Japan, medium.....	.6000	.6000
DISTRICT OF COLUMBIA.			
Washington.....	Gunpowder and oolong, medium.....	.5000	.5000
	Oolong, green, medium.....	.5000	.5000
	Oolong, green, medium.....	.5000	.5000
FLORIDA.			
Jacksonville.....	Formosa, oolong, and moyune gunpowder.....	.6000	.6000
	Gunpowder and English breakfast.....	.5000	.5000
	Hyson, oolong, Ceylon, and English breakfast.....	.6000	.6000
GEORGIA.			
Atlanta.....	Gunpowder, medium.....	.5000	.5000
	Oolong, Assam, and imperial.....	.5000	.5000
ILLINOIS.			
Chicago.....	Japan.....	.5000	.5000
	Japan.....	.5000	.5000
	Japan.....	.5000	.5000
	Japan.....	.5000	.5000
	Japan, medium.....	.5000	.5000
	Japan, medium.....	.5000	.5000
	Imperial, green, medium.....	.5000	.5000
Peoria.....	Japan, good.....	.6000	.6000
	Japan, medium.....	.4000	.4000
	Japan, medium.....	.6000	.6000
	Japan, medium.....	.6000	.6000
INDIANA.			
Indianapolis.....	Gunpowder.....	.4500	.4375
	Imperial, No. 1.....	.6000	.6000
Terre Haute.....	Gunpowder.....	.6000	.6000
	Imperial.....	.6000	.6000
IOWA.			
Des Moines.....	Japan, medium, uncolored.....	.5000	.5000
	Japan, medium, uncolored.....	.4500	.4500
Dubuque.....	Japan, medium, sun-dried.....	.5000	.5000
	Japan, medium, sun-dried.....	.4000	.4000
KANSAS.			
Topeka.....	Gunpowder.....	.5000	.5000
	Oolong.....	.4000	.4000
KENTUCKY.			
Louisville.....	Gunpowder, green, medium.....	.6000	.6000
	Oolong and gunpowder, medium.....	.5000	.5000
LOUISIANA.			
New Orleans.....	Black and green.....	.5000	.5000
	Oolong and green, Imperial.....	.4000	.4000
	Oolong and imperial.....	.6000	.6000
MAINE.			
Portland.....	Oolong, medium.....	.5000	.5000
	Oolong, medium.....	.5000	.5000

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

TEA, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
MARYLAND.			
Baltimore.....	Formosa, oolong.....	\$0.6000	\$0.6000
	Japan, imperial.....	.5000	.5000
	Japan, uncolored.....	.6000	.5792
MASSACHUSETTS.			
Boston.....	Formosa, oolong, good.....	.5000	.5000
	Formosa, oolong, medium.....	.3500	.3500
	Japan, oolong.....	.4000	.4000
Fall River.....	Oolong, medium.....	.5000	.5000
	Oolong, medium.....	.5000	.5000
Lynn.....	Formosa oolong, medium.....	.4000	.4000
	Oolong.....	.5000	.5000
Malden.....	Formosa, oolong, medium.....	.4000	.4000
	Formosa, oolong, medium.....	.5000	.5000
Worcester.....	Oolong, black, medium.....	.6000	.6000
	Oolong and Japan.....	.6000	.6000
MICHIGAN.			
Detroit.....	English breakfast.....	.5000	.5000
	Japan, uncolored, medium.....	.3500	.3500
Grand Rapids.....	Japan, green.....	.5000	.5000
	Japan, medium.....	.5000	.5000
MINNESOTA.			
Duluth.....	Japan, sun-dried.....	.5000	.5000
	Japan, sun-dried, medium.....	.5000	.5000
Minneapolis.....	Japan, uncolored.....	.5000	.5000
	Japan, uncolored.....	.5000	.5000
	Japan, uncolored, choice.....	.5000	.5000
St. Paul.....	Japan.....	.5000	.5000
	Japan, uncolored, good.....	.5000	.5000
MISSOURI.			
Kansas City.....	Oolong, medium.....	.3500	.3500
	Oolong, medium.....	.3500	.3500
St. Louis.....	Gunpowder, medium.....	.4000	.4000
	Gunpowder, medium.....	.4500	.4500
	Oolong.....	.4500	.4500
	Oolong.....	.4000	.4000
MONTANA.			
Butte.....	Japan.....	.5000	.5000
	Japan.....	.5000	.5000
NEBRASKA.			
Omaha.....	Gunpowder.....	.5000	.5000
	Gunpowder.....	.5000	.5000
NEW HAMPSHIRE.			
Manchester.....	Formosa.....	.4000	.4000
	Oolong and Japan, medium.....	.5000	.5000
NEW JERSEY.			
Jersey City.....	English breakfast.....	.5000	.5000
	Formosa, black.....	.5000	.5000
Trenton.....	Formosa and hyson.....	.5000	.5000
	Formosa and young hyson, medium.....	.5000	.5000
NEW YORK.			
Albany.....	Oolong.....	.5000	.5000
	Oolong, medium.....	.4000	.4000
Brooklyn.....	Oolong, Japan, gunpowder, and Ceylon.....	.5000	.5000
	Oolong and young hyson.....	.5000	.5000
Buffalo.....	Oolong, medium.....	.5000	.5000
	Medium.....	.5000	.5000
	Young hyson, best.....	.5000	.5000
	Young hyson, medium.....	.6000	.5000
Flushing.....	Ceylon.....	.5000	.5000
	Young hyson.....	.5000	.5000
New York(a).....	Japan, good.....	.5000	.5000
	Japan, good.....	.4500	.4500
	Oolong, fine.....	.5000	.5000
	Oolong, good.....	.5000	.5000
Rochester.....	English breakfast.....	.6000	.6000
	Gunpowder.....	.5000	.5000
	Japan, second grade.....	.5000	.5000
Syracuse.....	Japan.....	.5000	.5000
	Oolong and Japan.....	.5000	.5000

(a) Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

TEA, PER POUND—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
OHIO.			
Cincinnati.....	Young hyson.....	\$0.6000	\$0.6000
	Young hyson, medium.....	.6000	.6000
	Young hyson, medium.....	.5000	.5000
Cleveland.....	Japan, good.....	.4000	.4000
	Japan, uncolored.....	.5000	.5000
	Oolong and Japan.....	.5000	.5000
	Oolong, young hyson, and Japan, good..	.3500	.3500
Toledo.....	English breakfast.....	.4500	.4500
	Japan.....	.5000	.5000
OREGON.			
Portland.....	Japan.....	.5000	.5000
	Japan.....	.5000	.5000
PENNSYLVANIA.			
Allegheny.....	Japan.....	.5000	.5000
	Japan.....	.5000	.5000
	Oolong and young hyson.....	.6000	.6000
Philadelphia.....	Foochow, black.....	.5000	.5000
	Formosa, good, black.....	.5000	.5000
	Formosa, oolong.....	.4000	.4000
	Oolong.....	.4000	.4000
	Oolong, black.....	.4000	.4000
Pittsburg.....	Oolong, medium.....	.5000	.5000
	Oolong, medium.....	.5000	.5000
Seranton.....	English breakfast.....	.5000	.5000
	Oolong and gunpowder.....	.5000	.5000
Wilkes-Barre.....	English breakfast.....	.5000	.5000
	Oolong, middle grade.....	.5000	.5000
RHODE ISLAND.			
Providence.....	Oolong, good.....	.6000	.6000
	Oolong, medium.....	.5000	.5000
SOUTH CAROLINA.			
Charleston.....	Green, low grade.....	.2500	.2500
	Oolong, black.....	.5000	.5000
	Soonfong, green and black.....	.5000	.5000
SOUTH DAKOTA.			
Sioux Falls.....	Japan.....	.5000	.5000
	Japan, best.....	.5000	.5000
TENNESSEE.			
Memphis.....	Gunpowder.....	.6500	.6500
	Gunpowder, medium.....	.6000	.6000
	Gunpowder, medium.....	.6000	.6000
Nashville.....	Gunpowder, green, medium.....	.6000	.6000
	Gunpowder and imperial, medium.....	.4000	.4000
TEXAS.			
Dallas.....	Ceylon, young hyson, and English break- fast.....	.6875	.6417
	Oolong and imperial, medium.....	.6000	.6000
San Antonio.....	Gunpowder and English breakfast.....	.5000	.5000
	Moyune, gunpowder, and oolong, medium..	.5000	.5000
UTAH.			
Salt Lake City.....	Japan, medium.....	.5000	.5000
	Oolong.....	.5000	.5000
VIRGINIA.			
Norfolk.....	Oolong and gunpowder, black and green..	.4000	.4000
	Oolong and gunpowder, good.....	.5000	.5000
Richmond.....	Gunpowder.....	.6000	.6000
	Oolong and gunpowder.....	.5000	.6000
WASHINGTON.			
Seattle.....	Japan.....	.5000	.6000
	Japan and Ceylon.....	.6000	.6000
Tacoma.....	Japan, medium.....	.5000	.5000
	Japan, uncolored.....	.5000	.5000
WEST VIRGINIA.			
Wheeling.....	Gunpowder, green.....	.5000	.5000
	Gunpowder, green, medium.....	.5000	.5000
WISCONSIN.			
Milwaukee.....	Japan, medium.....	.3500	.3500
	Young hyson, medium.....	.4000	.4000

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

VEAL, PER POUND.

State and locality.	Description.	Average price.	
		1904.	1905.
ALABAMA.			
Birmingham.....	Cutlets.....	\$0.2000	\$0.2000
	Cutlets.....	.2000	.2017
Montgomery.....	Cutlets.....	.1396	.1396
	Cutlets.....	.1271	.1271
ARKANSAS.			
Little Rock.....	Cutlets.....	.1500	.1500
	Cutlets.....	.1500	.1500
CALIFORNIA.			
Los Angeles.....	Cutlets.....	.2000	.2000
	Cutlets.....	.2000	.2000
San Francisco.....	Cutlets.....	.1750	.2000
	Cutlets.....	.1500	.1500
	Cutlets.....	.1725	.1800
	Cutlets.....	.2000	.2000
COLORADO.			
Denver.....	Cutlets.....	.1396	.1500
	Loin, chops.....	.2000	.2000
CONNECTICUT.			
New Haven.....	Cutlets.....	.2600	.2608
	Cutlets.....	.2358	.2367
DELAWARE.			
Wilmington.....	Cutlets.....	.2050	.2100
	Cutlets, choice.....	.2500	.2500
DISTRICT OF COLUMBIA.			
Washington.....	Cutlets.....	.1867	.1950
	Cutlets.....	.2208	.2225
	Cutlets.....	.1883	.2067
FLORIDA.			
Jacksonville.....	Cutlets.....	.2000	.2000
	Cutlets.....	.2500	.2500
	Cutlets.....	.2000	.2353
GEORGIA.			
Atlanta.....	Cutlets.....	.1500	.1500
	Cutlets.....	.1583	.1542
ILLINOIS.			
Chicago.....	Cutlets.....	.1758	.1800
	Cutlets.....	.1442	.1533
	Cutlets.....	.1633	.1683
	Leg.....	.1083	.1250
Peoria.....	Cutlets.....	.1354	.1388
	Cutlets.....	.1346	.1483
	Cutlets.....	.1200	.1200
INDIANA.			
Indianapolis.....	Cutlets.....	.2000	.2125
	Cutlets.....	.1917	.1900
	Cutlets.....	.2000	.2500
Terre Haute.....	Chops.....	.1202	.1500
	Cutlets.....	.1351	.1500
IOWA.			
Des Moines.....	Cutlets.....	.1625	.1692
	Cutlets.....	.1292	.1354
Dubuque.....	Cutlets.....	.1396	.1396
	Cutlets.....	.1500	.1563
KANSAS.			
Topeka.....	Cutlets.....	.1625	.1675
	Cutlets.....	.1525	.1700
KENTUCKY.			
Louisville.....	Chops.....	.1388	.1500
	Cutlets.....	.2000	.2000
MAINE.			
Portland.....	Cutlets.....	.2475	.2250
	Cutlets.....	.2500	.2500
MARYLAND.			
Baltimore.....	Cutlets.....	.2017	.2000
	Cutlets.....	.2167	.2350
	Cutlets.....	.2000	.2000

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

VEAL, PER POUND—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
MASSACHUSETTS.			
Boston.....	Cutlets.....	\$0.2250	\$0.2408
	Cutlets.....	.2700	.2750
	Cutlets.....	.2708	.3000
Fall River.....	Cutlets.....	.2800	.2800
	Cutlets.....	.2000	.2000
Lynn.....	Cutlets.....	.2725	.2842
	Cutlets.....	.2808	.2883
Malden.....	Cutlets.....	.2800	.2917
	Cutlets.....	.2517	.2596
Worcester.....	Cutlets.....	.2800	.2800
	Cutlets.....	.2067	.2067
MICHIGAN.			
Detroit.....	Cutlets.....	.2000	.2000
	Cutlets.....	.1500	.1475
	Cutlets.....	.1450	.1450
	Cutlets.....	.1300	.1338
Grand Rapids.....	Cutlets.....	.1733	.1750
	Cutlets.....	.1600	.1600
MINNESOTA.			
Duluth.....	Cutlets.....	.1458	.1500
	Cutlets.....	.1800	.1800
Minneapolis.....	Cutlets.....	.1500	.1500
	Cutlets.....	.1575	.1575
St. Paul.....	Cutlets.....	.1250	.1250
	Cutlets.....	.1250	.1250
MISSOURI.			
Kansas City.....	Cutlets.....	.1525	.1567
	Cutlets.....	.1800	.1650
St. Louis.....	Cutlets.....	.2408	.2375
	Cutlets.....	.2358	.2408
	Cutlets.....	.2192	.2342
MONTANA.			
Butte.....	Cutlets.....	.1675	.1675
	Cutlets.....	.1675	.1492
NEBRASKA.			
Omaha.....	Cutlets.....	.1708	.1600
	Cutlets.....	.1600	.1600
NEW HAMPSHIRE.			
Manchester.....	Cutlets.....	.1908	.2000
	Cutlets.....	.2500	.2500
NEW JERSEY.			
Jersey City.....	Cutlets.....	.1800	.1950
	Cutlets.....	.1950	.1983
Trenton.....	Cutlets.....	.2500	.2500
	Cutlets.....	.2250	.2500
NEW YORK.			
Albany.....	Cutlets.....	.2500	.2500
	Cutlets.....	.2500	.2500
Brooklyn.....	Cutlets.....	.2275	.2350
	Cutlets, best.....	.2500	.2500
	Cutlets, best.....	.2500	.2500
Buffalo.....	Cutlets.....	.1800	.2000
	Cutlets, choice.....	.2000	.2075
	Cutlets, steak.....	.1967	.1950
	Cutlets, steak.....	.1967	.1867
	Cutlets, steak.....	.2317	.2358
Flushing.....	Cutlets.....	.2142	.2375
	Cutlets.....	.2500	.2500
	Cutlets.....	.2500	.2500
New York (a).....	Cutlets.....	.2142	.2192
	Cutlets.....	.2050	.2275
	Cutlets, medium.....	.2500	.2500
Rochester.....	Cutlets.....	.1400	.1400
	Cutlets.....	.1700	.1700
	Cutlets.....	.1600	.1600
Syracuse.....	Cutlets.....	.2017	.1967
	Cutlets.....	.2200	.2200
	Cutlets.....	.2000	.2000

(a) Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

VEAL, PER POUND—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
OHIO.			
Cincinnati.....	Cutlets.....	\$0.1917	\$0.1917
	Cutlets.....	.1950	.1800
	Cutlets.....	.2000	.2000
Cleveland.....	Cutlets.....	.2250	.2250
	Cutlets.....	.2000	.2000
	Cutlets.....	.2400	.2400
	Shoulder cut.....	.1200	.1200
Toledo.....	Cutlets.....	.1950	.1950
	Cutlets.....	.2000	.2000
OREGON.			
Portland.....	Cutlets.....	.1500	.1313
	Cutlets.....	.1438	.1458
PENNSYLVANIA.			
Allegheny.....	Cutlets.....	.2033	.2083
	Cutlets.....	.2083	.1983
Philadelphia.....	Cutlets.....	.2417	.2417
	Cutlets.....	.2000	.2017
	Cutlets.....	.2200	.2100
Pittsburg.....	Cutlets.....	.2200	.2250
	Cutlets.....	.2500	.2500
Seranton.....	Cutlets.....	.2000	.2000
	Cutlets.....	.2400	.2500
Wilkes-Barre.....	Cutlets.....	.2000	.2000
	Cutlets.....	.2000	.2000
RHODE ISLAND.			
Providence.....	Cutlets.....	.2783	.2792
	Cutlets, first grade.....	.3275	.3275
SOUTH CAROLINA.			
Charleston.....	Cutlets.....	.1500	.1500
	Cutlets.....	.1500	.1525
SOUTH DAKOTA.			
Sioux Falls.....	Cutlets.....	.1500	.1625
	Cutlets.....	.1250	.1354
TENNESSEE.			
Memphis.....	Cutlets.....	.2000	.1733
	Roast.....	.1500	.1600
Nashville.....	Cutlets.....	.2000	.2000
	Cutlets.....	.2000	.2000
TEXAS.			
Dallas.....	Cutlets.....	.1500	.1500
	Cutlets.....	.1500	.1500
San Antonio.....	Cutlets.....	.1250	.1250
	Cutlets.....	.1250	.1479
UTAH.			
Salt Lake City.....	Cutlets.....	.1563	.1563
	Cutlets, medium.....	.1500	.1500
	Cutlets, medium.....	.1730	.1750
VIRGINIA.			
Norfolk.....	Cutlets.....	.2000	.2000
	Cutlets.....	.1575	.1575
Richmond.....	Cutlets.....	.2000	.2000
	Cutlets, choice.....	.2000	.2000
WASHINGTON.			
Seattle.....	Cutlets.....	.2000	.2000
	Cutlets.....	.2000	.2000
	Cutlets.....	.2000	.2000
Tacoma.....	Cutlets.....	.2000	.2000
	Cutlets.....	.2000	.2000
WEST VIRGINIA.			
Wheeling.....	Cutlets.....	.2000	.2033
WISCONSIN.			
Milwaukee.....	Cutlets.....	.1250	.1400
	Cutlets.....	.1700	.1900

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

VINEGAR, PER GALLON.

State and locality.	Description.	Average price.	
		1904.	1905.
ALABAMA.			
Birmingham.....	Cider, best.....	\$0.3500	\$0.3500
	Cider, pure, medium.....	.3000	.3000
Montgomery.....	Cider, best.....	.3500	.3500
	Cider, pure, sold by the quart.....	.4000	.4000
ARKANSAS.			
Little Rock.....	Cider.....	.4000	.4000
	Cider.....	.3500	.3500
CALIFORNIA.			
Los Angeles.....	Cider.....	.5000	.4500
	Cider, pure.....	.5000	.5000
San Francisco.....	Cider.....	.3500	.3500
	Cider.....	.3500	.3500
	Cider.....	.3500	.3500
	Cider.....	.3500	.3500
COLORADO.			
Denver.....	Cider.....	.4000	.4000
	Cider, pure.....	.3000	.3000
CONNECTICUT.			
New Haven.....	Cider.....	.2000	.2000
	Cider, pure, first grade.....	.2500	.2500
DELAWARE.			
Wilmington.....	Cider.....	.2500	.2500
	Cider, sold by the quart.....	.2800	.2800
	Cider, sold by the quart.....	.2000	.2000
DISTRICT OF COLUMBIA.			
Washington.....	Cider, best.....	.2500	.2500
	Cider, best.....	.3000	.3000
	Cider, pure.....	.2500	.2500
FLORIDA.			
Jacksonville.....	Cider, pure.....	.2500	.2500
	Cider, sold by the quart.....	.4000	.4000
	Cider, sold by the quart.....	.4000	.4000
GEORGIA.			
Atlanta.....	Cider, best.....	.3000	.3000
	Cider, cheap grade.....	.2000	.2000
ILLINOIS.			
Chicago.....	White wine.....	.1500	.1500
	White wine.....	.1500	.1500
	White wine.....	.2000	.2000
	White wine.....	.1500	.2500
Peoria.....	Cider.....	.2500	.2500
	Cider.....	.2500	.2500
	Cider.....	.3000	.3000
INDIANA.			
Indianapolis.....	Cider.....	.3000	.3000
	Cider.....	.2500	.2500
Terre Haute.....	Cider.....	.2500	.2500
	Cider.....	.2000	.2000
IOWA.			
Des Moines.....	Cider, pure.....	.2500	.2500
	Cider, pure.....	.2500	.2500
Dubuque.....	Cider, pure.....	.3000	.3000
	Cider, pure.....	.3000	.3000
KANSAS.			
Topeka.....	Cider.....	.1800	.2000
	Cider.....	.2000	.2000
KENTUCKY.			
Louisville.....	Cider.....	.3000	.3000
	Cider, pure.....	.3500	.3500
LOUISIANA.			
New Orleans.....	Cider.....	.2000	.2000
	Cider, pure.....	.4000	.4000
	Fruit, pure.....	.3000	.3000
MAINE.			
Portland.....	Cider.....	.2500	.2500
	Cider, country.....	.2500	.2500
MARYLAND.			
Baltimore.....	Cider.....	.2300	.2300
	Cider, pure.....	.2500	.3000
	Grain.....	.2000	.2000

TABLE L.—RETAIL PRICES OF FOOD, 1904 AND 1905—Continued.

VINEGAR, PER GALLON—Continued.

State and locality.	Description.	Average price.	
		1904.	1905.
MASSACHUSETTS.			
Boston.....	Cider.....	\$0.2500	\$0.2500
	Cider.....	.2500	.2500
	Cider.....	.2000	.2000
Fall River.....	Cider.....	.2000	.2000
	Cider, sold by the quart.....	.2000	.2000
Lynn.....	Cider.....	.1300	.1367
	Cider.....	.2500	.2500
Malden.....	Cider.....	.2000	.2000
	Cider.....	.2500	.2500
Worcester.....	Cider.....	.2000	.2000
	Cider.....	.1500	.1500
MICHIGAN.			
Detroit.....	Cider.....	.2500	.2500
	Cider, best.....	.2000	.2000
Grand Rapids.....	Cider.....	.2000	.2000
	Cider, sold by the quart.....	.2000	.2000
MINNESOTA.			
Duluth.....	Cider, best.....	.3500	.3500
	Cider, Heinz's.....	.3000	.3000
Minneapolis.....	Cider.....	.2500	.2500
	Cider, pure.....	.2500	.2500
St. Paul.....	Cider.....	.2500	.2500
	Cider.....	.3000	.3000
MISSOURI.			
Kansas City.....	Cider.....	.2000	.2000
	Cider.....	.2000	.2000
St. Louis.....	Cider, pure.....	.3000	.3000
	White wine.....	.2000	.2000
	White wine.....	.2500	.2500
MONTANA.			
Butte.....	Cider.....	.3500	.3500
	Cider, pure.....	.6000	.6000
NEBRASKA.			
Omaha.....	Cider.....	.3000	.3000
	Cider.....	.3000	.3000
NEW HAMPSHIRE.			
Manchester.....	Cider.....	.2000	.2000
	Cider.....	.2000	.2000
NEW JERSEY.			
Jersey City.....	Cider.....	.1800	.1800
	Cider, pure.....	.2000	.2000
Trenton.....	Cider.....	.2500	.2500
	Cider.....	.2500	.2500
NEW YORK.			
Albany.....	Cider.....	.1500	.1650
	Cider.....	.2400	.2000
Brooklyn.....	Cider.....	.2800	.2800
	Cider, sold by the quart.....	.2000	.2000
Buffalo.....	Cider.....	.1400	.1530
	Cider.....	.1500	.1500
Flushing.....	Cider.....	.2500	.2500
	Cider, sold by the quart.....	.4000	.4000
New York (a).....	Cider.....	.2500	.2500
	Cider.....	.2000	.2500
	Cider, Monarch.....	.1500	.1867
	Cider, sold by the quart.....	.2800	.2800
	White wine, Monarch.....	.1600	.1600
Rochester.....	Cider.....	.2000	.2200
	Cider.....	.1500	.1808
	Cider.....	.2000	.2000
Syracuse.....	Cider.....	.2000	.2000
	Cider.....	.1500	.1625
OHIO.			
Cincinnati.....	Cider.....	.2500	.2500
	Cider.....	.2500	.2500
	Cider, best.....	.2500	.2500
Cleveland.....	Cider.....	.2200	.2200
	Cider.....	.2000	.2000
	Cider.....	.1800	.1800
Toledo.....	Cider.....	.1500	.1500
	Cider.....	.2000	.2000

(a) Boroughs of Manhattan and Bronx only.

TABLE I.—RETAIL PRICES OF FOOD, 1904 AND 1905—Concluded.

VINEGAR, PER GALLON—Concluded.

State and locality.	Description.	Average price.	
		1904.	1905.
OREGON.			
Portland.....	Cider.....	\$0.2500	\$0.2500
	Cider.....	.3000	.3000
PENNSYLVANIA.			
Allegheny.....	Cider.....	.2000	.2333
	Cider, pure, sold by the quart.....	.2000	.2000
	Cider, pure, sold by the quart.....	.2400	.2533
Philadelphia.....	Cider.....	.2500	.2500
	Cider.....	.2000	.2000
	Cider.....	.1800	.1800
Pittsburg.....	Cider, best, sold by the quart.....	.3200	.3200
	Cider, pure, medium, sold by the quart.....	.2800	.2800
Scranton.....	Cider.....	.2000	.2167
	Cider, pure.....	.2500	.2500
Wilkes-Barre.....	Cider.....	.2500	.2500
	Cider.....	.2500	.2500
RHODE ISLAND.			
Providence.....	Cider.....	.2500	.2500
	Cider, pure.....	.2500	.2500
SOUTH CAROLINA.			
Charleston.....	Cider, best.....	.4000	.4000
	Cider, best.....	.4000	.4000
SOUTH DAKOTA.			
Sioux Falls.....	Cider.....	.3500	.3500
	Cider.....	.3500	.3500
TENNESSEE.			
Memphis.....	Cider.....	.3000	.3000
	Cider.....	.3000	.3000
Nashville.....	Cider.....	.3000	.3000
	Cider.....	.3000	.3000
TEXAS.			
Dallas.....	Cider.....	.4000	.4000
	Cider.....	.3500	.3500
San Antonio.....	Cider.....	.3500	.3500
	Cider.....	.3000	.3000
UTAH.			
Salt Lake City.....	Cider.....	.4000	.4000
	Cider, pure, medium.....	.4000	.4000
VIRGINIA.			
Norfolk.....	Cider.....	.3000	.3000
	Cider.....	.2500	.2500
Richmond.....	Cider, best.....	.4000	.4000
	Cider, sold by the quart.....	.3200	.3200
WASHINGTON.			
Seattle.....	Cider.....	.4000	.4000
	Cider.....	.4000	.4000
	Cider, Heinz's.....	.6000	.5000
Tacoma.....	Cider.....	.5000	.5000
	Cider.....	.3500	.3500
WEST VIRGINIA.			
Wheeling.....	Cider.....	.2000	.2000
	Malt.....	.2000	.2000
WISCONSIN.			
Milwaukee.....	Cider.....	.2500	.2500
	Cider.....	.2500	.2500

TABLE II.—RELATIVE RETAIL PRICES OF FOOD, 1890 TO 1905.

[Average price for 1890-1899=100.0.]

APPLES, EVAPORATED.

Year.	North At- lantic States.	South At- lantic States.	North Cen- tral States.	South Cen- tral States.	Western States.	United States.
1890.....	97.0	106.8	112.0	108.8	119.8	109.0
1891.....	95.0	106.8	116.4	113.3	112.8	110.3
1892.....	100.5	106.5	90.4	101.1	106.7	99.3
1893.....	104.4	103.7	110.9	105.3	108.5	107.0
1894.....	100.5	102.7	111.9	100.2	110.2	105.8
1895.....	106.1	100.5	93.1	93.6	99.8	97.4
1896.....	95.0	94.3	83.5	91.1	80.1	88.6
1897.....	100.5	94.3	80.2	87.8	81.2	87.8
1898.....	95.0	92.2	100.1	96.7	85.6	95.4
1899.....	106.1	92.2	101.6	102.1	95.4	99.5
1900.....	106.1	92.2	89.4	100.5	95.6	95.2
1901.....	100.8	94.2	96.1	99.3	95.2	96.8
1902.....	102.7	94.2	109.8	108.3	104.3	104.4
1903.....	107.5	91.4	101.3	109.1	95.6	100.8
1904.....	105.9	89.7	99.2	107.4	94.9	99.2
1905.....	113.3	97.8	108.2	111.5	96.8	106.0

BEANS, DRY.

1890.....	104.2	98.7	110.0	100.0	92.0	103.3
1891.....	105.8	97.5	116.3	109.7	87.7	106.2
1892.....	101.7	97.5	106.9	108.0	92.7	102.4
1893.....	102.1	97.5	114.1	108.9	100.7	105.0
1894.....	102.9	100.4	105.5	101.4	100.1	102.8
1895.....	101.1	100.6	102.4	95.5	98.9	100.5
1896.....	96.1	99.9	84.5	87.2	95.5	92.7
1897.....	94.7	100.6	79.0	86.4	104.3	91.5
1898.....	94.7	102.9	87.0	98.3	113.0	95.9
1899.....	96.9	104.1	94.2	104.7	115.3	99.7
1900.....	105.3	105.0	113.7	116.9	122.2	110.0
1901.....	105.3	118.8	119.2	118.1	127.8	113.9
1902.....	110.4	119.5	118.6	123.0	131.3	116.8
1903.....	111.5	113.3	123.9	119.8	141.5	118.1
1904.....	109.0	112.4	122.9	118.7	141.8	116.8
1905.....	108.6	111.9	121.8	119.5	141.6	116.3

BEEF, FRESH, ROASTS.

1890.....	100.2	98.1	99.6	95.3	103.2	99.5
1891.....	100.3	98.5	100.0	97.0	105.2	100.0
1892.....	100.2	97.1	100.3	97.0	101.6	99.6
1893.....	100.3	97.0	99.3	97.5	95.7	99.0
1894.....	97.9	98.5	98.9	99.4	96.1	98.3
1895.....	98.2	98.2	99.2	101.5	96.3	98.6
1896.....	98.9	99.9	98.8	101.9	97.0	99.1
1897.....	100.0	101.8	100.1	101.8	98.7	100.3
1898.....	101.5	103.8	101.0	102.5	101.2	101.7
1899.....	102.6	107.1	102.7	106.0	104.9	103.7
1900.....	105.4	109.4	105.9	108.0	108.8	106.5
1901.....	110.0	112.7	110.7	110.2	112.5	110.7
1902.....	118.9	120.2	117.2	118.5	119.9	118.6
1903.....	111.1	115.9	113.6	116.7	113.8	113.1
1904.....	111.8	114.6	112.7	115.6	114.2	112.8
1905.....	109.8	115.0	113.0	115.8	113.1	112.2

BEEF, FRESH, STEAKS.

1890.....	99.3	98.9	97.6	95.9	102.6	98.8
1891.....	99.7	100.0	98.6	96.8	102.7	99.4
1892.....	99.7	98.1	99.1	96.5	101.7	99.3
1893.....	100.1	98.3	100.2	99.0	96.0	99.6
1894.....	98.8	98.1	98.4	99.6	91.9	98.2
1895.....	99.1	99.6	99.4	99.2	97.3	99.1
1896.....	99.0	99.1	100.0	101.6	98.8	99.5
1897.....	100.1	99.0	100.6	101.7	100.3	100.2
1898.....	101.7	102.2	102.1	102.9	102.6	102.0
1899.....	102.6	106.8	103.9	106.8	106.2	103.9
1900.....	104.9	110.5	106.5	109.7	107.1	106.4
1901.....	109.6	114.4	112.0	111.9	111.0	111.0
1902.....	118.0	117.7	119.2	122.4	116.5	118.5
1903.....	111.9	114.0	114.7	112.1	112.1	112.9
1904.....	113.1	113.5	114.8	111.3	113.4	113.4
1905.....	111.0	114.4	115.1	112.4	112.9	112.9

TABLE III.—RELATIVE RETAIL PRICES OF FOOD, 1890 TO 1905—Continued.

[Average price for 1890-1899=100.0.]

BEEF, SALT.

Year.	North At- lantic States.	South At- lantic States.	North Cen- tral States.	South Cen- tral States.	Western States.	United States.
1890.....	97.9	95.7	96.5	98.8	100.7	97.5
1891.....	98.5	98.0	96.7	98.8	109.1	98.3
1892.....	99.2	96.4	100.4	98.8	107.0	99.5
1893.....	100.5	99.0	100.3	98.8	99.4	100.3
1894.....	99.3	101.1	97.5	98.8	97.3	98.9
1895.....	100.4	101.8	97.5	98.8	99.3	99.6
1896.....	100.0	99.8	99.7	98.8	96.8	99.8
1897.....	100.4	100.7	102.3	102.6	96.8	100.9
1898.....	101.6	101.2	103.7	102.6	96.8	102.1
1899.....	102.1	106.4	105.3	103.0	96.8	103.2
1900.....	102.3	110.8	106.1	103.5	94.0	103.7
1901.....	104.8	115.2	108.3	103.5	94.0	106.1
1902.....	117.1	121.0	115.3	112.5	91.9	116.0
1903.....	108.0	118.9	110.8	106.5	83.1	108.8
1904.....	108.0	117.9	109.1	106.5	83.1	108.3
1905.....	106.3	117.6	110.6	106.1	81.7	107.9

BREAD, WHEAT.

Year.	North At- lantic States.	South At- lantic States.	North Cen- tral States.	South Cen- tral States.	Western States.	United States.
1890.....	100.4	100.2	100.4	100.0	100.0	100.3
1891.....	100.4	100.2	100.4	100.0	100.0	100.3
1892.....	100.3	100.2	100.4	100.0	100.0	100.3
1893.....	100.2	100.2	99.8	100.0	100.0	100.1
1894.....	100.0	100.5	99.8	100.0	100.0	99.9
1895.....	99.8	99.1	99.8	100.0	100.0	99.7
1896.....	99.9	100.2	99.8	100.0	100.0	99.9
1897.....	99.9	100.2	100.0	100.0	100.0	100.0
1898.....	99.5	100.2	100.2	100.0	100.0	99.8
1899.....	99.5	100.2	99.4	100.0	100.0	99.6
1900.....	99.4	100.2	100.2	97.6	100.0	99.7
1901.....	99.1	100.2	99.6	97.6	100.0	99.4
1902.....	99.6	100.2	99.4	97.6	97.1	99.4
1903.....	100.3	101.1	100.2	105.2	95.8	100.2
1904.....	103.4	104.4	104.2	113.7	97.5	103.9
1905.....	104.9	102.4	104.9	115.8	96.4	104.5

BUTTER.

Year.	North At- lantic States.	South At- lantic States.	North Cen- tral States.	South Cen- tral States.	Western States.	United States.
1890.....	99.5	99.0	97.4	102.7	102.5	99.2
1891.....	107.0	101.8	105.5	105.3	116.9	106.4
1892.....	107.6	103.5	106.2	103.9	111.3	106.8
1893.....	110.5	106.6	111.6	104.2	106.0	109.9
1894.....	101.1	101.3	103.0	101.4	101.5	101.7
1895.....	96.6	98.6	97.3	99.4	93.7	97.0
1896.....	92.2	97.1	91.6	96.7	90.8	92.7
1897.....	93.0	96.4	93.7	95.2	88.0	93.1
1898.....	94.4	97.5	95.8	95.2	94.0	95.1
1899.....	97.9	98.2	97.9	96.0	95.2	97.7
1900.....	101.8	100.0	103.6	93.2	95.1	101.4
1901.....	102.7	102.5	106.1	101.5	94.6	103.2
1902.....	112.3	106.7	112.9	110.4	104.0	111.5
1903.....	110.8	106.7	113.2	109.7	107.2	110.8
1904.....	108.4	106.1	111.7	111.0	102.9	109.0
1905.....	113.4	109.2	113.8	114.2	108.4	112.7

CHEESE.

Year.	North At- lantic States.	South At- lantic States.	North Cen- tral States.	South Cen- tral States.	Western States.	United States.
1890.....	98.7	100.7	97.3	99.3	104.6	98.8
1891.....	100.1	100.5	99.7	99.7	105.8	100.3
1892.....	101.7	100.1	101.4	100.5	103.7	101.5
1893.....	102.2	100.5	101.9	100.5	100.6	101.8
1894.....	101.9	100.5	102.0	100.3	100.1	101.6
1895.....	99.2	100.2	99.4	99.0	96.4	99.2
1896.....	97.7	99.9	97.5	100.1	96.0	97.9
1897.....	99.5	99.1	98.8	99.2	94.9	99.0
1898.....	96.9	98.9	98.2	99.5	95.1	97.5
1899.....	102.1	99.6	103.8	101.9	102.9	102.4
1900.....	103.7	100.9	105.9	101.3	102.8	103.9
1901.....	102.7	102.0	104.9	101.4	105.1	103.2
1902.....	108.1	104.1	107.8	101.2	109.1	107.2
1903.....	110.6	104.7	109.4	103.4	113.5	109.4
1904.....	107.5	103.3	107.8	103.2	113.1	107.4
1905.....	112.0	104.8	111.8	104.1	117.1	116.9

TABLE II.—RELATIVE RETAIL PRICES OF FOOD, 1890 TO 1905—Continued.

[Average price for 1890-1899=100.0.]

CHICKENS.

Year.	North Atlantic States.	South Atlantic States.	North Central States.	South Central States.	Western States.	* United States.
1890.....	102.2	98.3	100.1	99.7	112.2	101.3
1891.....	105.1	100.0	102.6	100.7	118.4	104.0
1892.....	105.4	101.4	101.8	97.8	112.5	103.8
1893.....	105.5	100.9	103.8	100.5	97.5	104.2
1894.....	98.6	99.1	98.8	97.4	94.4	98.6
1895.....	98.1	100.1	98.4	98.8	96.1	98.4
1896.....	95.4	97.7	98.8	97.3	91.5	97.1
1897.....	93.4	98.3	94.0	95.5	88.2	94.0
1898.....	95.4	99.0	98.1	103.2	89.6	96.8
1899.....	99.9	105.2	103.4	108.9	99.4	101.8
1900.....	97.8	106.1	103.0	112.2	99.9	100.8
1901.....	99.5	109.7	104.6	120.5	101.4	103.0
1902.....	112.1	114.4	113.5	122.4	106.9	113.2
1903.....	116.4	118.5	119.5	139.2	101.5	118.5
1904.....	119.2	120.3	121.6	141.1	102.1	120.7
1905.....	119.5	121.2	124.9	148.9	109.3	123.6

COFFEE.

1890.....	103.2	104.8	108.8	108.6	111.8	105.4
1891.....	103.3	104.6	108.1	108.3	109.6	105.2
1892.....	102.9	103.0	105.7	105.8	104.5	103.8
1893.....	103.9	103.6	106.6	105.5	107.3	104.8
1894.....	102.4	103.3	104.4	103.1	106.2	103.3
1895.....	101.0	102.0	102.8	101.5	102.6	101.7
1896.....	99.6	99.7	99.7	96.5	100.0	99.6
1897.....	96.1	95.3	92.3	93.5	90.0	94.6
1898.....	93.9	92.5	86.5	88.7	84.3	91.1
1899.....	93.7	91.2	85.2	88.5	83.7	90.5
1900.....	94.4	90.8	86.2	86.1	86.3	91.1
1901.....	94.4	88.9	85.6	85.6	86.8	90.7
1902.....	93.3	85.8	85.2	86.7	85.1	89.6
1903.....	92.5	85.0	86.2	86.8	85.4	89.3
1904.....	94.1	89.3	88.8	91.4	87.0	91.8
1905.....	94.7	91.6	90.9	95.1	87.9	93.6

CORN MEAL.

1890.....	98.8	97.6	100.7	100.2	110.2	100.0
1891.....	106.7	104.0	112.2	116.3	119.6	109.7
1892.....	102.8	106.5	107.3	103.0	118.4	105.2
1893.....	101.1	98.1	106.2	106.1	107.1	103.1
1894.....	101.6	99.1	106.1	99.5	98.8	102.2
1895.....	100.4	103.3	102.4	99.4	95.7	100.8
1896.....	98.0	97.7	91.2	91.7	87.7	95.0
1897.....	97.2	97.1	89.0	91.7	84.0	93.7
1898.....	96.9	98.2	91.7	95.9	89.5	95.0
1899.....	96.2	100.1	92.6	96.2	88.7	95.1
1900.....	98.1	99.0	97.3	97.7	88.9	97.4
1901.....	104.5	110.3	113.1	109.2	94.7	107.1
1902.....	116.0	121.0	125.5	118.1	111.0	118.8
1903.....	119.5	118.3	127.6	115.2	113.2	120.7
1904.....	119.7	118.6	128.6	116.5	115.3	121.5
1905.....	120.2	117.3	130.2	119.1	114.8	122.2

EGGS.

1890.....	100.0	101.8	100.7	98.7	108.7	100.6
1891.....	106.2	105.7	108.1	103.3	111.0	106.9
1892.....	106.4	106.1	108.2	102.6	107.1	106.8
1893.....	107.8	106.3	110.2	103.0	106.0	108.1
1894.....	95.4	98.2	96.9	96.6	97.9	96.3
1895.....	98.8	99.4	100.1	101.6	97.2	99.3
1896.....	93.1	94.4	91.9	94.5	90.0	92.8
1897.....	91.8	93.1	89.5	95.1	92.7	91.4
1898.....	97.6	95.2	94.2	99.7	92.5	96.2
1899.....	102.2	99.7	100.0	102.9	96.9	101.1
1900.....	99.9	101.2	99.9	101.3	93.8	99.9
1901.....	105.3	106.2	105.9	111.5	98.2	105.7
1902.....	110.0	120.7	119.1	123.2	109.9	119.1
1903.....	125.9	126.0	123.3	134.2	118.7	125.3
1904.....	132.2	134.9	129.8	131.9	121.1	130.9
1905.....	132.3	137.9	129.2	133.3	123.5	131.6

TABLE II.—RELATIVE RETAIL PRICES OF FOOD, 1890 TO 1905—Continued.

[Average price for 1890-1899=100.0.]

FISH, FRESH.

Year.	North At- lantic States.	South At- lantic States.	North Cen- tral States.	South Cen- tral States.	Western States.	United States.
1890.....	99.3	98.7	99.0	100.0	100.2	99.3
1891.....	99.9	98.2	99.3	100.0	99.1	99.6
1892.....	100.8	97.6	99.5	100.0	98.8	100.1
1893.....	101.2	97.4	99.2	100.0	97.0	100.1
1894.....	100.4	102.7	98.8	100.0	101.3	100.4
1895.....	99.5	101.3	99.8	100.0	100.5	99.8
1896.....	100.2	102.2	100.4	100.0	97.4	100.2
1897.....	99.4	101.0	100.8	100.0	98.4	99.8
1898.....	100.0	101.1	101.3	100.0	103.5	100.5
1899.....	99.4	99.8	101.8	100.0	103.6	100.2
1900.....	99.7	100.6	101.5	102.9	101.6	100.4
1901.....	100.1	104.8	102.7	103.1	103.0	101.4
1902.....	102.8	105.9	105.9	113.8	112.7	105.0
1903.....	106.6	103.5	108.3	114.4	109.7	107.3
1904.....	108.3	103.0	109.0	114.4	108.6	107.9
1905.....	109.4	106.0	112.6	116.6	108.2	109.9

FISH, SALT.

1890.....	100.7	98.0	102.3	99.2	95.4	100.7
1891.....	102.2	98.0	103.0	95.4	98.1	101.7
1892.....	103.8	98.0	100.6	95.4	106.0	102.2
1893.....	104.9	98.5	102.6	95.4	100.6	103.4
1894.....	102.6	99.7	100.8	93.5	98.1	101.5
1895.....	98.7	100.7	99.8	93.5	100.6	98.9
1896.....	97.8	101.1	96.0	95.3	96.7	97.5
1897.....	94.3	101.1	94.2	102.8	94.1	95.2
1898.....	97.2	101.8	98.4	115.4	104.6	98.8
1899.....	97.9	103.0	102.5	114.0	106.0	100.2
1900.....	96.6	103.4	99.7	123.2	102.1	99.1
1901.....	98.6	104.2	100.7	126.3	100.6	100.9
1902.....	101.0	104.1	100.8	132.4	110.0	102.8
1903.....	104.1	104.2	114.3	139.1	148.3	108.4
1904.....	109.3	105.6	116.9	141.5	148.6	111.7
1905.....	111.7	107.2	120.4	140.6	150.0	113.8

FLOUR, WHEAT.

1890.....	110.4	105.6	109.5	113.5	107.7	109.7
1891.....	112.7	106.9	113.2	113.8	114.7	112.5
1892.....	104.6	101.4	105.3	104.8	114.0	105.1
1893.....	96.4	98.1	95.0	94.4	95.9	96.1
1894.....	89.0	92.6	87.8	85.8	85.8	88.7
1895.....	88.8	92.0	90.1	86.8	83.6	89.0
1896.....	92.1	96.3	92.1	94.6	92.6	92.7
1897.....	103.2	101.8	105.5	107.9	109.0	104.3
1898.....	108.0	106.6	107.4	104.0	106.7	107.4
1899.....	94.9	97.9	94.0	94.6	90.0	94.6
1900.....	94.0	97.4	95.4	94.0	87.2	94.3
1901.....	93.6	98.2	96.4	95.9	86.8	94.4
1902.....	93.9	97.4	96.9	95.6	91.8	94.9
1903.....	100.5	101.7	102.4	97.7	104.5	101.2
1904.....	119.9	118.2	123.2	117.0	114.9	119.9
1905.....	121.1	119.9	121.0	115.4	116.9	119.9

LARD.

1890.....	98.2	97.8	97.9	100.4	98.5	98.2
1891.....	100.1	99.2	98.9	103.0	102.5	99.8
1892.....	105.0	101.9	101.4	106.0	106.9	103.6
1893.....	121.3	118.5	112.5	121.1	117.3	117.9
1894.....	108.1	105.7	105.0	109.4	108.5	106.9
1895.....	100.7	97.1	100.7	96.9	101.6	100.1
1896.....	91.3	93.8	94.5	89.2	90.9	92.5
1897.....	88.0	91.0	92.8	87.5	87.7	89.8
1898.....	92.3	95.8	96.3	90.3	92.4	93.9
1899.....	95.1	99.3	100.0	96.2	93.6	97.1
1900.....	103.1	108.6	105.8	102.4	99.0	104.4
1901.....	117.2	122.7	119.0	118.1	107.8	118.1
1902.....	134.1	140.4	133.4	138.4	120.8	134.3
1903.....	127.8	134.5	124.0	123.2	118.8	126.7
1904.....	118.3	121.0	113.7	116.7	115.9	117.3
1905.....	117.4	119.3	113.3	116.2	116.3	116.6

TABLE II.—RELATIVE RETAIL PRICES OF FOOD, 1890 TO 1905—Continued.

[Average price for 1890-1899=100.0.]

MILK, FRESH.

Year.	North At- lantic States.	South At- lantic States.	North Cen- tral States.	South Cen- tral States.	Western States.	United States.
1890.....	100.5	101.5	100.0	100.5	100.7	100.5
1891.....	100.5	101.5	100.0	100.5	100.7	100.5
1892.....	100.8	101.5	100.0	98.9	100.7	100.6
1893.....	100.5	101.5	100.1	98.9	100.7	100.4
1894.....	100.0	101.5	100.1	98.9	100.7	100.2
1895.....	100.0	98.9	100.5	99.4	100.8	100.0
1896.....	99.7	98.1	100.5	101.2	100.8	99.9
1897.....	99.6	98.4	100.3	101.2	98.9	99.7
1898.....	99.2	98.4	100.1	101.2	98.1	99.4
1899.....	99.3	98.5	98.4	99.5	98.1	98.9
1900.....	100.8	99.1	98.9	99.5	98.1	99.9
1901.....	102.0	100.6	100.5	99.5	98.1	101.1
1902.....	104.3	102.1	102.5	103.6	99.2	103.3
1903.....	106.4	102.8	105.8	107.6	104.6	105.8
1904.....	107.4	103.1	106.1	108.4	103.3	106.3
1905.....	107.5	105.5	106.9	110.1	102.3	107.0

MOLASSES.

Year.	North At- lantic States.	South At- lantic States.	North Cen- tral States.	South Cen- tral States.	Western States.	United States.
1890.....	104.7	101.7	106.0	104.5	104.3	104.7
1891.....	101.6	100.9	101.6	102.3	104.0	101.7
1892.....	101.1	100.2	101.4	101.3	102.8	101.2
1893.....	100.7	99.6	100.7	99.0	102.8	100.6
1894.....	100.1	100.4	100.6	99.4	102.0	100.3
1895.....	98.9	100.4	99.3	98.4	97.6	99.0
1896.....	98.6	99.5	99.5	100.5	92.9	98.7
1897.....	97.6	99.3	97.9	96.9	95.3	97.7
1898.....	98.0	98.6	96.7	100.2	99.0	97.9
1899.....	98.7	99.4	96.4	97.6	99.2	98.2
1900.....	102.3	98.7	103.0	105.8	100.3	102.2
1901.....	100.9	97.7	102.3	106.0	101.9	101.3
1902.....	101.6	97.7	103.8	106.8	102.9	102.1
1903.....	103.6	95.9	105.8	109.3	103.9	103.8
1904.....	104.3	95.9	105.0	109.3	104.3	104.0
1905.....	104.6	96.2	105.8	109.7	104.3	104.4

MUTTON AND LAMB.

Year.	North At- lantic States.	South At- lantic States.	North Cen- tral States.	South Cen- tral States.	Western States.	United States.
1890.....	102.3	97.8	100.6	99.1	100.4	100.7
1891.....	101.4	99.3	100.1	98.7	102.7	100.6
1892.....	102.2	99.9	100.5	97.9	102.4	101.0
1893.....	100.5	98.7	101.2	98.4	97.1	99.9
1894.....	95.2	100.4	99.9	99.3	96.2	97.8
1895.....	97.3	100.8	99.3	100.1	98.3	98.7
1896.....	97.7	99.4	99.7	99.9	97.2	98.7
1897.....	100.3	98.9	98.9	100.6	99.1	99.6
1898.....	100.6	102.2	98.6	103.8	100.4	100.4
1899.....	102.5	102.6	100.9	103.8	106.3	102.6
1900.....	105.7	103.9	104.2	109.3	107.1	105.6
1901.....	100.2	104.0	110.3	110.5	107.8	109.0
1902.....	113.3	109.3	116.8	119.9	112.5	114.7
1903.....	109.9	114.7	114.7	113.4	111.7	112.6
1904.....	112.9	114.6	116.5	113.9	110.9	114.1
1905.....	115.2	116.8	122.7	116.3	115.1	117.8

PORK, FRESH.

Year.	North At- lantic States.	South At- lantic States.	North Cen- tral States.	South Cen- tral States.	Western States.	United States.
1890.....	97.5	94.2	96.0	97.9	100.7	97.0
1891.....	100.0	97.7	96.6	98.2	100.6	98.7
1892.....	101.0	98.7	100.4	98.1	101.4	100.5
1893.....	100.5	105.0	105.3	103.8	97.7	107.0
1894.....	103.4	100.3	100.2	101.2	98.4	101.8
1895.....	99.2	102.1	99.4	100.0	101.4	99.7
1896.....	96.2	100.2	98.0	99.6	99.9	97.4
1897.....	96.1	97.7	99.3	99.4	99.5	97.6
1898.....	97.2	100.5	100.7	98.6	96.3	98.6
1899.....	99.8	103.5	103.9	103.1	104.0	101.7
1900.....	106.9	107.4	109.6	105.4	107.8	107.7
1901.....	117.9	118.5	119.4	115.3	110.5	117.9
1902.....	127.9	127.7	129.6	127.3	117.4	128.3
1903.....	128.4	130.5	126.3	123.3	114.7	127.0
1904.....	125.2	127.7	122.5	118.8	116.3	124.0
1905.....	126.9	129.7	126.9	118.1	121.1	126.6

TABLE III.—RELATIVE RETAIL PRICES OF FOOD, 1890 TO 1905—Continued.

[Average price for 1890-1899=100.0.]

PORK, SALT, BACON.

Year.	North At- lantic States.	South At- lantic States.	North Cen- tral States.	South Cen- tral States.	Western States.	United States.
1890.....	95.0	98.0	95.5	94.9	99.5	95.8
1891.....	96.3	98.2	95.8	95.4	100.7	96.6
1892.....	98.9	100.3	98.2	100.3	100.9	99.1
1893.....	109.5	102.9	109.0	112.3	111.6	109.0
1894.....	104.3	99.3	103.3	104.6	105.5	103.6
1895.....	98.8	99.9	97.6	99.1	100.2	96.4
1896.....	97.2	96.5	97.4	94.6	94.3	96.7
1897.....	98.2	98.9	97.2	96.2	93.4	97.4
1898.....	99.3	99.3	102.1	101.2	96.4	100.2
1899.....	102.3	106.6	104.0	101.3	97.5	102.9
1900.....	109.3	108.7	111.6	110.2	104.0	109.7
1901.....	120.3	119.2	124.4	122.0	111.7	121.0
1902.....	134.6	132.6	137.8	141.6	127.3	135.6
1903.....	137.5	134.6	141.2	152.5	137.5	139.8
1904.....	133.8	131.8	140.6	151.2	137.4	137.9
1905.....	134.2	131.7	142.5	151.4	139.2	138.8

PORK, SALT, DRY OR PICKLED.

Year.	North At- lantic States.	South At- lantic States.	North Cen- tral States.	South Cen- tral States.	Western States.	United States.
1890.....	94.9	95.8	96.2	87.3	111.1	95.3
1891.....	98.9	97.1	99.8	94.2	111.1	98.9
1892.....	100.7	96.7	101.2	99.4	111.1	100.5
1893.....	109.9	99.5	110.5	107.1	111.1	108.7
1894.....	103.9	97.1	104.1	106.5	111.1	103.4
1895.....	100.2	99.0	96.8	107.3	106.5	99.2
1896.....	96.5	100.7	92.9	98.1	83.3	95.5
1897.....	97.0	100.1	97.0	97.8	83.3	97.3
1898.....	98.1	105.9	98.7	97.5	83.3	99.1
1899.....	99.3	108.1	102.8	104.9	87.9	101.8
1900.....	106.1	113.9	107.3	113.4	94.9	107.7
1901.....	112.7	129.9	118.5	129.2	83.3	117.5
1902.....	129.2	147.7	131.4	145.2	83.3	132.5
1903.....	124.7	144.8	128.6	142.1	83.3	129.0
1904.....	120.5	139.4	125.6	140.6	83.4	125.8
1905.....	120.5	141.2	126.1	138.8	83.3	126.0

PORK, SALT, HAM.

Year.	North At- lantic States.	South At- lantic States.	North Cen- tral States.	South Cen- tral States.	Western States.	United States.
1890.....	98.7	98.0	99.0	96.2	102.5	98.7
1891.....	98.6	99.3	99.7	98.6	104.0	99.3
1892.....	101.6	100.5	102.3	102.6	104.8	101.9
1893.....	110.1	105.3	110.8	103.6	112.8	109.3
1894.....	102.4	109.4	101.3	102.1	103.4	101.9
1895.....	98.3	99.7	99.3	100.2	96.6	98.8
1896.....	97.8	99.4	97.4	96.6	94.4	97.6
1897.....	98.5	99.2	97.4	99.1	94.9	98.2
1898.....	94.4	98.8	94.0	100.2	90.6	95.1
1899.....	99.4	99.4	98.9	100.9	95.9	99.2
1900.....	105.6	102.7	106.3	108.4	102.7	105.3
1901.....	110.8	107.6	111.6	112.1	103.9	110.2
1902.....	119.1	114.4	122.8	123.6	114.9	119.4
1903.....	121.6	118.1	122.0	128.3	116.2	121.3
1904.....	118.7	114.0	118.8	127.3	114.5	118.4
1905.....	118.0	114.7	119.9	126.4	114.8	118.5

POTATOES, IRISH.

Year.	North At- lantic States.	South At- lantic States.	North Cen- tral States.	South Cen- tral States.	Western States.	United States.
1890.....	109.4	105.0	109.2	106.5	123.9	109.3
1891.....	114.2	112.6	123.1	118.5	110.9	116.6
1892.....	96.7	94.3	95.7	89.5	95.7	95.7
1893.....	110.5	112.1	116.9	111.2	106.3	112.3
1894.....	100.5	101.3	109.0	101.9	89.8	102.6
1895.....	90.7	94.8	93.8	92.8	85.0	91.8
1896.....	79.3	79.0	70.0	79.6	86.2	77.0
1897.....	95.8	93.9	87.2	97.6	87.0	93.0
1898.....	106.6	107.7	104.3	104.0	92.5	103.4
1899.....	96.7	99.3	99.6	98.2	122.7	96.1
1900.....	94.0	98.1	89.6	93.9	99.8	93.5
1901.....	113.8	114.6	123.7	116.0	116.2	116.8
1902.....	114.3	118.2	124.5	106.8	120.2	117.0
1903.....	113.4	109.8	121.4	111.0	106.6	114.8
1904.....	121.0	114.4	123.7	115.0	125.7	121.3
1905.....	107.8	104.2	113.9	110.1	110.6	110.2

TABLE II.—RELATIVE RETAIL PRICES OF FOOD, 1890 TO 1905—Continued.

[Average price for 1890-1899=100.0.]

PRUNES.

Year.	North Atlantic States.	South Atlantic States.	North Central States.	South Central States.	Western States.	United States.
1890.....	120.4	109.4	116.5	110.5	118.0	116.8
1891.....	118.2	109.4	118.8	109.7	119.8	116.5
1892.....	114.9	109.4	113.8	110.6	115.1	113.5
1893.....	117.0	109.4	119.3	112.7	109.7	115.6
1894.....	98.9	109.4	100.3	101.5	101.4	100.9
1895.....	92.3	104.0	92.7	93.6	98.0	94.2
1896.....	85.9	90.1	84.9	89.0	89.5	86.8
1897.....	83.3	86.3	84.3	88.5	81.3	84.3
1898.....	85.5	86.3	85.6	92.4	83.0	86.3
1899.....	83.6	86.3	83.7	91.5	85.7	85.1
1900.....	81.7	86.3	82.1	88.3	80.2	83.0
1901.....	81.7	86.3	79.2	91.5	79.1	82.6
1902.....	80.0	86.3	81.3	98.0	81.2	83.4
1903.....	82.4	86.3	77.1	81.4	69.6	80.2
1904.....	81.5	83.9	76.6	82.7	69.0	79.6
1905.....	81.6	84.5	79.0	86.3	73.0	81.4

RICE.

Year.	North Atlantic States.	South Atlantic States.	North Central States.	South Central States.	Western States.	United States.
1890.....	101.2	100.5	101.8	99.7	102.5	101.3
1891.....	102.6	100.9	102.9	101.6	105.8	102.5
1892.....	101.4	101.2	100.9	99.8	104.0	101.3
1893.....	98.1	100.4	98.1	98.1	97.6	98.4
1894.....	98.5	100.3	99.6	99.8	96.1	99.0
1895.....	98.9	99.1	98.8	100.2	96.0	98.8
1896.....	96.7	98.1	97.7	97.7	91.6	96.7
1897.....	98.1	98.6	97.7	96.8	96.1	97.9
1898.....	101.8	100.3	101.5	102.3	104.6	101.7
1899.....	102.7	100.5	102.0	103.7	105.7	102.4
1900.....	102.7	102.0	101.1	104.5	106.3	102.4
1901.....	102.9	103.3	103.4	107.6	105.6	103.5
1902.....	102.3	104.1	104.3	106.0	107.3	103.5
1903.....	103.7	104.2	103.3	107.0	104.2	103.9
1904.....	102.0	102.6	100.1	104.6	100.7	101.6
1905.....	102.7	103.7	102.5	103.6	101.2	102.6

SUGAR.

Year.	North Atlantic States.	South Atlantic States.	North Central States.	South Central States.	Western States.	United States.
1890.....	119.9	115.8	116.3	121.4	122.6	118.6
1891.....	101.9	103.1	102.8	105.5	100.0	102.7
1892.....	94.8	96.4	96.4	99.7	99.9	96.2
1893.....	101.5	103.7	100.9	100.1	102.9	101.5
1894.....	92.4	97.1	94.2	96.6	97.5	93.8
1895.....	91.4	92.3	92.2	93.5	90.1	91.8
1896.....	97.1	94.1	97.2	96.0	91.2	96.6
1897.....	96.2	93.1	96.3	94.7	92.9	95.7
1898.....	102.4	99.8	101.1	95.7	99.4	101.3
1899.....	102.2	101.7	102.5	96.8	94.7	101.7
1900.....	106.2	105.9	104.3	98.2	97.5	104.9
1901.....	104.2	104.6	102.5	94.2	96.3	103.0
1902.....	97.0	97.3	96.3	90.7	81.2	96.0
1903.....	97.2	97.4	95.1	92.1	90.9	96.1
1904.....	102.1	99.8	107.7	98.9	101.0	101.9
1905.....	106.1	103.9	102.1	99.4	100.5	103.9

TEA.

Year.	North Atlantic States.	South Atlantic States.	North Central States.	South Central States.	Western States.	United States.
1890.....	100.0	100.6	99.8	98.6	101.1	100.0
1891.....	100.3	100.8	100.7	99.0	99.8	100.4
1892.....	100.2	100.8	100.6	99.5	97.4	100.2
1893.....	100.1	100.8	100.3	99.8	98.1	100.1
1894.....	99.2	100.2	96.9	99.1	98.2	98.7
1895.....	99.1	100.2	96.3	99.6	97.2	98.5
1896.....	99.0	99.1	98.1	99.9	97.5	98.8
1897.....	98.7	99.1	97.5	100.1	97.9	98.5
1898.....	100.6	99.1	101.3	100.8	101.7	100.7
1899.....	103.1	99.3	108.5	103.6	111.0	104.4
1900.....	103.5	99.7	111.1	105.8	110.8	105.5
1901.....	104.0	100.2	114.1	107.5	113.2	106.7
1902.....	104.3	100.5	114.8	108.8	113.7	107.2
1903.....	103.5	98.1	112.9	107.5	114.4	106.0
1904.....	103.5	98.1	112.0	107.5	114.9	105.8
1905.....	103.2	97.9	111.9	107.1	116.2	105.7

TABLE III.—RELATIVE RETAIL PRICES OF FOOD, 1890 TO 1905—Concluded.

[Average price for 1890-1899=100.0.]

VEAL.

Year.	North At- lantic States.	South At- lantic States.	North Cen- tral States.	South Cen- tral States.	Western States.	United States.
1890.....	99.9	96.8	97.2	97.0	105.8	98.8
1891.....	100.5	99.8	97.6	99.3	104.5	99.6
1892.....	100.2	101.5	98.7	98.5	104.0	100.0
1893.....	99.7	101.9	100.8	99.3	96.2	100.0
1894.....	98.4	100.3	99.9	99.3	92.5	98.7
1895.....	98.1	98.9	100.0	99.3	92.9	98.5
1896.....	99.7	99.7	99.7	101.5	96.5	99.5
1897.....	99.1	100.1	100.1	101.8	99.1	99.9
1898.....	101.2	99.6	101.0	101.8	103.6	101.2
1899.....	103.1	101.4	105.0	102.2	105.0	103.7
1900.....	104.1	103.9	106.3	101.9	106.1	104.9
1901.....	107.5	106.5	111.0	106.6	109.1	108.8
1902.....	117.8	110.0	117.0	112.1	110.7	115.2
1903.....	119.7	110.0	116.3	106.0	111.8	114.9
1904.....	120.5	110.6	116.8	105.8	113.0	115.5
1905.....	122.4	112.9	120.4	107.2	113.2	117.7

VINEGAR.

Year.	North At- lantic States.	South At- lantic States.	North Cen- tral States.	South Cen- tral States.	Western States.	United States.
1890.....	103.7	104.2	103.6	98.2	99.6	102.9
1891.....	108.4	103.0	105.6	102.1	99.6	105.5
1892.....	104.0	98.1	105.1	101.7	99.6	102.7
1893.....	97.6	98.7	101.9	101.8	99.6	99.5
1894.....	98.4	99.3	101.5	101.5	99.6	99.8
1895.....	97.6	99.3	101.2	97.9	99.6	98.9
1896.....	97.2	99.3	96.0	95.7	99.6	97.2
1897.....	97.3	99.3	96.0	96.7	99.6	97.4
1898.....	97.5	99.3	94.4	102.2	101.1	97.9
1899.....	98.3	99.3	94.8	101.8	102.6	98.3
1900.....	97.4	99.3	96.0	104.6	102.6	98.5
1901.....	96.8	99.3	95.4	110.0	104.7	98.9
1902.....	96.3	99.3	98.1	107.1	111.9	99.5
1903.....	96.3	99.3	96.7	106.9	111.9	99.1
1904.....	95.8	98.6	96.5	107.3	111.9	98.9
1905.....	98.6	99.5	98.1	107.3	110.3	100.3

RECENT REPORTS OF STATE BUREAUS OF LABOR STATISTICS.

PENNSYLVANIA.

Annual Report of the Secretary of Internal Affairs of the Commonwealth of Pennsylvania. Vol. XXXII, 1904. Part III, Industrial Statistics. Robert C. Bair, Chief of Bureau. 459 pp.

The subjects presented in this report are the following: Historical notes pertaining to the early manufacture of iron in the State, 13 pages; directory and chronology of bureaus of labor statistics, 5 pages; consanguinity of labor and education, 6 pages; Pennsylvania's report to the Twentieth Annual Convention of Chiefs of Bureaus of Labor Statistics, 7 pages; comparative statistics of manufactures, 324 pages; statistics of iron, steel, and tin-plate production, 27 pages; statistics of coal mining, 16 pages; labor statistics, 20 pages; textile industries in Philadelphia, 30 pages.

THE EARLY MANUFACTURE OF IRON.—This historical presentation pertaining to the early manufacture of iron in the State contains the royal order of 1750 to collect statistics on iron and steel in the Province of Pennsylvania; a letter (1757) from the Lords of Trade and Plantations to the governor for an account of the quantity of iron made in the Province from Christmas, 1749, to 5th January, 1756; and a list of furnaces, forges, tilt hammers, steel mills, and slitting mills, beginning in 1717 and ending in 1756. With this list is published an outline sketch of the original plants engaged in iron manufacture in Pennsylvania from 1717 to the close of the eighteenth century.

STATISTICS OF MANUFACTURES.—Under this caption is presented a series of tables showing, in detail, for each of 84 manufacturing industries, capital invested, cost of production, employment, wages, and other data as reported by 726 identical establishments for each of the years 1896 to 1904. The following is a summary of the more important data:

COMPARATIVE STATISTICS OF 726 IDENTICAL MANUFACTURING ESTABLISHMENTS, 1896 TO 1904.

Year.	Capital invested in plants, and working capital.	Cost of basic material.	Market value of product.	Per cent of cost of basic material of value of product.	Average days in operation.
1896.....	\$173,197,489	\$83,071,431	\$172,475,359	48.1	271
1897.....	176,065,302	90,126,459	185,057,126	48.7	286
1898.....	181,067,009	102,684,141	220,062,023	46.7	286
1899.....	212,318,698	144,270,656	290,766,771	49.6	289
1900.....	229,190,000	164,601,067	327,994,626	50.2	289
1901.....	236,679,954	168,475,644	341,649,423	49.3	292
1902.....	240,990,717	196,129,654	391,687,298	50.1	293
1903.....	269,067,643	198,834,725	392,920,632	50.6	290
1904.....	308,394,185	166,494,596	336,181,737	49.5	286

COMPARATIVE STATISTICS OF 726 IDENTICAL MANUFACTURING ESTABLISHMENTS,
1896 TO 1904—Concluded.

Year.	Persons employed.	Aggregate wages paid.	Average yearly earnings.	Average daily wages.	Value of product per employee.	Per cent of wages of value of product.
1896.....	124,073	\$47,418,013	\$382.18	\$1.41	\$1,360.11	27.5
1897.....	129,365	49,538,378	382.93	1.34	1,430.50	26.8
1898.....	144,737	58,031,174	400.94	1.40	1,520.43	26.4
1899.....	165,769	71,861,845	433.51	1.50	1,754.05	24.7
1900.....	177,436	77,867,305	438.85	1.52	1,848.52	23.7
1901.....	185,064	82,952,015	448.16	1.53	1,845.82	24.3
1902.....	197,039	94,193,872	478.05	1.63	1,987.87	24.0
1903.....	205,828	99,104,567	481.49	1.66	1,908.98	25.2
1904.....	185,140	84,973,923	458.97	1.60	1,815.82	25.3

IRON, STEEL, AND TIN-PLATE PRODUCTION.—The statements following present the principal data for 1904 relating to the production of pig iron, steel, rolled iron and steel, and tin plate:

PIG IRON.

Capital invested.....	\$177,157,223
Gross tons of production.....	7,411,300
Realized value.....	\$101,830,467
Value of basic material.....	\$54,664,808
Average days in operation.....	284
Total employees.....	14,087
Aggregate wages paid.....	\$7,909,335
Average yearly earnings.....	\$561.46
Average daily wages.....	\$1.98
Cost of labor per ton.....	\$1.07
Tonnage per man per day.....	1.85

STEEL.

Gross tons of production:	
Bessemer.....	3,465,669
Open-hearth, acid process.....	572,185
Open-hearth, basic process.....	3,520,915
Crucible and other processes.....	55,023
Total.....	7,613,792

ROLLED IRON AND STEEL.

Capital invested.....	\$293,842,522
Gross tons of production:	
Rails.....	825,434
Iron and steel structural shapes.....	803,758
Cut nails and spikes.....	28,162
Plates and sheets (including black plate for tinning).....	1,565,190
Other rolled products.....	4,833,762
Total.....	8,056,306
Value of product (not including the tin-plate works).....	\$276,677,614
Adult male employees (not including those in tin-plate works).....	90,021
Total employees (not including those in tin-plate works).....	91,146
Aggregate wages paid adult male employees.....	\$55,686,545
Aggregate wages paid all employees.....	\$55,932,427

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Average days in operation.....	293
Average yearly earnings of adult male employees.....	\$618. 59
Average yearly earnings of all employees.....	\$613. 66
Average daily wages of adult male employees.....	\$2. 11
Average daily wages of all employees.....	\$2. 09
Average value per ton.....	\$35. 54
Cost of labor per ton.....	\$7. 19

TIN PLATE (BLACK-PLATE WORKS).

Capital invested (17 plants).....	\$8, 400, 298
Pounds of production of black plate:	
Tinned.....	515, 162, 946
Not tinned.....	41, 811, 316
Total.....	556, 974, 262
Value of product.....	\$18, 504, 358
Adult male employees.....	8, 081
Total employees.....	8, 397
Aggregate wages paid adult male employees.....	\$5, 048, 403
Aggregate wages paid all employees.....	\$5, 135, 828
Average days in operation.....	255
Average yearly earnings of adult male employees.....	\$624. 72
Average yearly earnings of all employees.....	\$611. 63
Average daily wages of adult male employees.....	\$2. 45
Average daily wages of all employees.....	\$2. 40

TIN PLATE (DIPPING WORKS).

Capital invested (3 plants).....	\$610, 000
Pounds of production of tin and terne plate.....	27, 311, 255
Value of product.....	\$1, 411, 154
Adult male employees.....	167
Total employees.....	232
Aggregate wages paid adult male employees.....	\$97, 583
Aggregate wages paid all employees.....	\$112, 684
Average days in operation.....	285
Average yearly earnings of adult male employees.....	\$584. 33
Average yearly earnings of all employees.....	\$485. 70
Average daily wages of adult male employees.....	\$2. 05
Average daily wages of all employees.....	\$1. 70

STATISTICS OF COAL MINING.—In the table following are presented statistics of the anthracite and bituminous coal operations in the State for the year 1904:

ANTHRACITE AND BITUMINOUS COAL OPERATIONS, 1904.

Items.	Anthracite coal.	Bituminous coal.
Number of mines in operation.....	280	1,160
Miners.....	38,064	99,007
Inside workmen.....	68,420	21,518
Outside workmen.....	54,095	15,893
Aggregate wages paid to miners.....	\$26,065,400	\$44,082,403
Aggregate wages paid to inside workmen.....	\$43,226,469	\$10,213,564
Aggregate wages paid to outside workmen.....	\$22,925,945	\$7,691,228
Average days in operation.....	231	204
Average yearly earnings (all employees).....	\$574.28	\$452.09
Average yearly earnings (miners only).....	\$684.78	\$442.56
Average daily wages (all employees).....	\$2.49	\$2.26
Average daily wages (miners only).....	\$2.96	\$2.17
Number of tons mined and marketed.....	58,057,447	97,490,708
Market value of product on board cars.....	\$140,370,498	(a)
Market value of product at mines.....	(a)	\$91,636,570
Average tons mined per miner per year.....	1,525	b 823
Average tons mined per miner per day.....	6.5	b 4.4
Number of coke ovens.....		36,586
Tons of coked coal.....		20,358,934

a Not reported.

b Average for 568 mines.

In addition to the above there were obtained from 31 plants 2,917,725 tons of washery coal (coal washed from culm banks at the mines), valued at \$2,143,171, and giving employment to 1,481 work people, whose yearly earnings averaged \$410.91; further, there were 77,624 tons of coal, valued at \$71,321, dredged from the Susquehanna and Schuylkill rivers, giving employment to 205 work people, to whom was paid \$39,191 in wages.

LABOR STATISTICS.—In 1904 returns from 656 manufacturing establishments, embracing 84 industries, showed 8,908 work people as owning their homes, and those renting as paying an average annual rental of \$125; the average working hours as 54 per week, and 11 strikes during the year, in which 1,017 employees were involved. Returns from 46 anthracite coal mining companies showed 6,201 work people as owning their homes, and, from 127 companies, those renting as paying an average annual rental of \$63; the average working hours as 54 per week, and 3 strikes and 2 lockouts during the year, in which 1,512 employees were involved. Returns from 505 bituminous coal mining companies showed 9,088 work people as owning their homes, and those renting as paying an average annual rental of \$63; the average working hours as 48 per week, and 44 strikes and 1 lockout during the year, in which 4,273 employees were involved. Returns from 149 iron and steel companies showed 2,566 work people as owning their homes, and those renting as paying an average annual rental of \$118; the average working hours as 57 per week, and 5 strikes and 2 lockouts during the year, in which 714 employees were involved. Returns from 23 pig-iron companies showed

388 work people as owning their homes, those renting as paying an average annual rental of \$74, and the average working hours as 79 per week.

TEXTILE INDUSTRIES.—Special returns in 1904 from 552 establishments engaged in the textile industries in Philadelphia showed 64,011 employees (26,243 males, 31,208 females, and 6,560 children), to whom were paid an aggregate of \$24,541,029 in wages, the average yearly earnings of the males being \$515.01, of the females \$317.53, and of the children \$170.12. The establishments were in operation during the year an average of 284 days, the hours of labor averaged 58 per week, and the total value of product (not including 38 dyeing, bleaching, and finishing plants) aggregated \$105,879,546. The average annual rental paid by heads of families was \$145, while there were 195 establishments which reported 1,173 employees as owning their homes. Of the total employees, the nationality of 42,298 was reported, 32,502 of the number being Americans.

RHODE ISLAND.

Eighteenth Annual Report of the Commissioner of Industrial Statistics, made to the General Assembly at its January session, 1905. Henry E. Tiepke, Commissioner. viii, 285 pp.

The subjects of inquiry presented in this report are the following: Statistics of textile manufactures, 49 pages; statistics relating to workingmen, 212 pages; strikes in 1904, 11 pages.

TEXTILE MANUFACTURES.—Comparative statistics are given for the years 1902 and 1903 for 130 identical establishments, of which 50 were engaged in the manufacture of cotton goods, 11 in the manufacture of hosiery and knit goods, 20 were bleacheries and dye and print works, 4 were engaged in the manufacture of silk goods, and 45 in the manufacture of woolen goods. The statistics are summarized in the following table:

STATISTICS OF 130 TEXTILE MANUFACTURING ESTABLISHMENTS, 1902 AND 1903.

Items.	1902.	1903.	Increase.	
			Number or amount.	Per cent.
Single proprietors.....	10	11	1	10.00
Firms.....	12	9	3	25.00
Corporations.....	108	110	2	1.85
Partners in firms.....	33	25	8	24.24
Stockholders in corporations.....	3,691	3,691		
Aggregate wages paid.....	\$19,221,064	\$20,021,371	\$800,307	4.16
Average yearly earnings.....	\$382.86	\$394.00	\$11.14	2.91
Employees:				
Average number.....	50,204	50,816	612	1.22
Greatest number.....	54,773	54,800	27	.05
Smallest number.....	45,356	46,068	712	1.57

a Decrease.

For 1903 alone statistics are given for 195 establishments, of which 91 were engaged in the manufacture of cotton goods, 11 in the manufacture of hosiery and knit goods, 21 were bleacheries and dye and print works, 4 were engaged in the manufacture of silk goods, and 68 in the manufacture of woolen goods. A summary of the statistics of the 195 establishments follows:

Single proprietors.....	23
Firms.....	19
Corporations.....	153
Partners in firms.....	51
Stockholders in corporations.....	4, 232
Aggregate wages paid.....	\$21, 245, 379
Average yearly earnings.....	\$393. 57
Employees:	
Average number.....	53, 981
Greatest number.....	57, 238
Smallest number.....	47, 576

The average yearly earnings were \$370.99 in the manufacture of cotton goods, \$415.32 in woolen goods, \$370.48 in silk goods, \$357.93 in hosiery and knit goods, and \$419.76 in bleacheries and dye and print works.

The following statement shows, for 6 selected occupations, the average weekly wages paid during 1903 in the textile industries of the State:

AVERAGE WEEKLY WAGES IN SELECTED OCCUPATIONS IN TEXTILE INDUSTRIES, 1903.

Industry.	Black-smiths.	Machinists.	Loom fixers.	Frame spinners.	Mule spinners.	Weavers.
Cotton goods.....	\$12. 50	\$12. 64	\$11. 90	\$5. 23	\$10. 90	\$8. 84
Hosiery and knit goods.....	13. 00	18. 50	15. 00	6. 00	10. 50	14. 50
Bleacheries and dye and print works.....	14. 62	15. 10				
Silk goods.....			12. 63			9. 50
Woolen goods.....	13. 96	14. 21	14. 73	5. 99	10. 73	12. 24

MORTALITY STATISTICS OF WORKINGMEN.—This presentation consists of three tables, arranged by counties, cities, and towns, and covers a period of four years (1899 to 1902). The first table shows for each of the four years the causes of death of workingmen engaged in specified occupations and their ages at time of death. The second shows for each of the four years the conjugal condition and nativity of the deceased. The third gives the occupations and nativity of the deceased by five-year age periods.

STRIKES IN 1904.—This section of the report consists of a chronological record giving the location, cause, and character of employment affected of every strike occurring within the State during the year. The returns indicate that there were fewer labor disputes during 1904 than during 1903.

RECENT FOREIGN STATISTICAL PUBLICATIONS.

BELGIUM.

Monographies Industrielles Aperçu Économique, Technologique et Commercial. Ministère de l'Industrie et du Travail. Filature Mécanique du Coton, du Lin, du Chanvre et du Jute. 1902. 173 pp. Fabrication des Produits Chimiques Proprement Dits. 1905. 367 pp.

These volumes are two of a series under preparation by the Belgian labor office, presenting in the form of monographs the results of inquiries into selected industries or groups of industries, which are considered from the economic, technical, and commercial standpoints.

TEXTILE INDUSTRIES.—The first volume named treats of the spinning of cotton, flax, hemp, and jute. The report gives the number of establishments and statistics of employees; an account of the materials used; a description of the mechanical processes; the direct products; the waste, utilizable and other; a brief discussion of the economic importance of the industry; a comparison with the conditions of production in other countries, and a directory of establishments.

Cotton spinning is carried on in 40 establishments in Belgium, employing 8,068 persons, of whom 450 are managers, directors, engineers, foremen, etc., and 7,638 are work people. In 12 other establishments 324 persons are employed in twisting cotton. Twenty-eight establishments, with 14,084 employees, are engaged in the spinning of flax. Of these employees, 13,366 are classed as work people. Hemp is spun in 5 establishments and jute in 13, with 160 and 1,533 employees, respectively. These and other statistics of employment are based on the industrial census of 1896. No statistics of production are given, and commerce is treated only in a general way, the larger portion of the work being devoted to more or less technical descriptions of materials, machinery, and products. Reference is also made to the question of specialization of products as affecting profits and to geographical and tariff conditions in their relations to imports and exports of the various products.

CHEMICAL INDUSTRIES.—The industries treated of in this volume are classed according to their products as follows: A. Sulphuric acid and its related products, and superphosphates. B. Soda, products containing chlorine, and salts of potash. C. Other mineral products. D. Extracts of coal and of wood and other organic substances.

Beside these, the production of certain articles for laboratory and pharmaceutical uses is considered. The total number of establishments is 256, employing approximately 9,300 persons. Brief mention is made of the industrial importance of each article; and processes, materials, and products are described. No general statistical summary is given.

Les Salaires dans l'Industrie Gantoise: II. Industrie de la Filature du Lin. Office du Travail, Ministère de l'Industrie et du Travail. 1904. cxlv, 239 pp.

This volume is the second of a series of reports being issued by the Belgian bureau of labor on wage conditions in the manufacturing industries of Ghent. The present inquiry, which was conducted by a specially authorized agent of the bureau, relates to the flax-spinning industry.

The report consists of two parts, the first of which contains a history of the linen industry of Ghent, from its origin in the middle ages down to the present time, with tabular statements of wages paid at different epochs. This is followed by an analysis in text form of information secured from 1,271 persons employed in the flax and jute spinning industries of Ghent, the earnings of the individual and of the family being treated in separate chapters. The second part of the report is devoted exclusively to statistical tables.

Space is given in the volume to a study of the age, sex, place of nativity, and the social and conjugal condition of the working population of Ghent employed in the linen industry and to the discussion of wages paid in individual occupations of that industry, hours of labor, productive capacity of employees at different ages, unemployment, and methods of wage payment.

Appended tables contain extracts of wage statistics for different periods between 1812 and 1900, taken from all available sources, together with various data compiled from the schedules furnished by the working people. There is also included a number of charts illustrating in graphic form the information presented in the text.

GREAT BRITAIN.

Eleventh and Twelfth Annual Reports on Changes in Rates of Wages and Hours of Labor in the United Kingdom, 1903 and 1904. 140 pp.; 138 pp. (Published by the Labor Department of the British Board of Trade.)

In these volumes are presented the changes in the market rates of wages and recognized hours of labor during the years 1903 and 1904. The unit of time taken is a full week, exclusive of overtime. *Various tables and summaries* present these changes under different

classifications. Piece-price lists and sliding wage scales adopted or amended during the years covered are also given. The returns used were obtained from employers and employers' associations, trade unions, bureau correspondents, and official sources.

RATES OF WAGES.—The decline in wages which began in 1901 continued to 1904, though it was not so marked in 1903 as in the two previous years. It was slightly greater in 1904, however, than in 1903. The industries most affected continue to be coal mining, iron and steel manufacture, and engineering and ship building.

In only two industries was there a net increase reported. Building trades, for the first time since this series of reports was begun, showed net losses in 1904. The textile trades for the first time since 1898 showed a net decrease, while clothing, which showed a decrease in 1903 returned a net increase in 1904. As in the years 1901 and 1902, the total is dominated by the large wage reductions in coal mining, which amounted to 84.8 per cent of the total net reduction in 1903 and 79.8 per cent in 1904. Of the total number of persons affected by changes in 1903, 84 per cent were miners, while in 1904, they formed 82 per cent.

The following tables summarize the principal data contained in the returns for the ten-year period, 1895 to 1904. Data relating to agricultural laborers, seamen, and railroad employees are not included in the general tables, but are treated separately in the report, as the number of employees affected by changes in these industries is not known.

NUMBER OF PERSONS AFFECTED BY CHANGES IN RATES OF WAGES, AND AMOUNT OF INCREASE OR DECREASE, 1895 TO 1904.

Year.	Number of changes.	Increase.		Decrease.		Net changes.	
		Persons affected.	Total weekly rise of wages.	Persons affected.	Total weekly reduction of wages.	Persons affected. ^(a)	Net weekly increase in wages.
1895.....	805	80,107	\$29,975	349,645	\$166,847	434,708	^b \$130,872
1896.....	1,607	379,975	163,745	167,357	34,692	605,404	129,053
1897.....	1,518	500,707	159,920	13,855	6,590	597,444	153,330
1898.....	1,403	1,000,240	396,618	11,865	3,828	1,012,119	392,790
1899.....	1,588	1,170,937	440,018	1,132	506	1,172,069	439,512
1900.....	1,413	1,109,284	1,028,835	23,010	13,733	1,132,386	1,015,102
1901.....	966	429,715	198,503	489,318	571,214	928,926	^b 372,711
1902.....	470	91,812	25,921	789,891	379,203	887,206	^b 353,282
1903.....	443	21,327	7,502	874,721	194,019	896,598	^b 186,517
1904.....	412	16,054	5,849	784,604	196,793	800,658	^b 190,914

^a Including persons whose wages were changed, but were the same at end of year as at beginning.

^b Decrease.

The number of changes of wages occurring in 1903 was 443, while 412 took place in 1904. The greatest number of persons affected by increases is reported for 1899, which also shows the smallest number affected by decreases. The year 1900, however, shows the largest weekly rise in wages, which was followed the next year by the *greatest total reduction in wages*. The total wage loss resulting

from reductions in 1904, calculating from the date of each change to the end of the year, amounted to £938,000 (\$4,564,777), or a per capita loss of \$5.82 for each person whose wages were reduced.

The following table shows, by industries, the number of persons affected by changes in rates of wages, and the net amount of weekly increase or decrease as compared with the previous year, for each year, 1901 to 1904:

NUMBER OF PERSONS AFFECTED BY CHANGES IN RATES OF WAGES, AND NET AMOUNT OF INCREASE (+) OR DECREASE (-) IN WEEKLY WAGES, 1901 TO 1904.

Industries.	Number of persons affected by changes in rates of wages. (c)				Net amount of increase or decrease in weekly wages as compared with preceding year.			
	1901.	1902.	1903.	1904.	1901.	1902.	1903.	1904.
Building.....	39,667	15,575	4,638	10,829	+ \$9,456	+ \$4,506	+ \$1,479	- \$4,302
Coal mining.....	704,681	735,524	752,190	658,300	- 277,785	- 359,498	- 158,103	- 152,292
Other mining (iron, etc.)....	16,098	7,121	9,361	10,753	- 25,573	+ 1,217	- 2,088	- 2,584
Quarrying.....	4,971	6,733	3,160	2,701	- 1,450	+ 1,489	- 1,080	- 448
Pig iron, and iron and steel manufacture.....	66,809	50,343	23,492	60,097	- 95,325	+ 4,064	- 5,236	- 16,751
Engineering and shipbuilding.....	21,244	32,822	74,690	31,094	+ 1,664	- 11,772	- 20,833	- 12,721
Other metal trades.....	11,963	15,357	1,934	1,973	- 5,451	+ 706	- 866	- 204
Textiles.....	3,098	2,107	1,001	3,939	+ 1,411	+ 691	+ 88	- 630
Clothing.....	5,409	3,112	3,496	333	+ 3,363	+ 1,416	- 418	- 131
Glass, etc., trades.....	1,833	86	6,386	7,318	+ 44	+ 40	- 2,920	- 4,005
Other trades.....	25,505	10,555	7,610	4,996	+ 8,015	+ 920	+ 968	- 404
Employees of public authorities.....	27,628	7,871	8,650	8,245	+ 8,920	+ 2,930	+ 2,492	+ 3,197
Total.....	928,926	887,206	896,598	800,658	- 372,711	- 353,282	- 186,517	- 190,913

a Including persons whose wages were changed, but were the same at end of year as at beginning.

Wages of agricultural laborers in England and Wales showed a slight net advance each year for 1903 and 1904, while in Scotland wages were stationary in 1903, but declined somewhat in 1904. In Ireland there was little change, though the scarcity of labor in certain localities had the effect of causing a slight upward tendency in the places affected.

Seamen's wages show a slight decrease for each of the years 1903 and 1904 for those engaged on steamships; wages on sailing vessels advanced slightly in 1903, but declined somewhat in 1904. Able seamen on steamships received an average of 81s. 1d. (\$19.73) in 1903 and of 80s. 6d. (\$19.69) in 1904 as monthly wages. Firemen and trimmers received about 4s. 6d. (\$1.10) per month more than seamen. These men all receive food in addition to the wages named.

The pay of railway employees is determined by graduated scales, as a rule, and the nature and amount of service are subject to frequent changes. For these reasons it is not feasible to indicate the changes made during any year, nor the number of persons affected by them. The method adopted as furnishing a fair indication of wage conditions is to obtain reports from 27 companies, employing 90 per cent of the railway labor of the United Kingdom, giving the total wage payment for a selected week, and the total persons

employed during that week, from which average weekly earnings are computed.

The reports cover employment in the transportation and mechanical departments. The first week in December is chosen as likely to be unaffected by abnormal conditions of traffic, etc. The average payments to employees for the week were found to be as follows for the years 1901 to 1904: For 1901, 25s. ¼d. (\$6.09) to 440,557 employees; 1902, 24s. 11¼d. (\$6.07) to 448,429 employees; 1903 (second week in December), 24s. 10¼d. (\$6.05) to 448,321 employees; 1904, 25s. ¼d. (\$6.09) to 445,577 employees. These figures are hardly more than suggestive, as they are for too short a period to be conclusive, and furthermore do not in any way take account of overtime earnings or other elements that might affect the total.

HOURS OF LABOR.—The changes in hours of labor were fewer for the two years under consideration than at any time since the commencement of this series of reports. As has been the case for some time, the net result of the changes has been to decrease the weekly work period.

The number of persons affected by changes and the aggregate and net results thereof for the ten-year period, 1895 to 1904, appear in the following table:

NUMBER OF PERSONS AFFECTED BY CHANGES IN HOURS OF LABOR, AND AMOUNT OF INCREASE OR DECREASE, 1895 TO 1904.

Year.	Number of changes.	Persons affected by—			Net total decrease in hours per week.
		Increases.	Decreases.	All changes.	
1895.....	141	1,287	21,448	22,735	44,105
1896.....	245	73,616	34,655	108,271	78,533
1897.....	254	1,060	69,572	70,632	284,675
1898.....	202	1,277	37,772	39,049	81,917
1899.....	200	2,600	83,349	35,940	127,142
1900.....	158	869	56,857	57,726	238,043
1901.....	117	585	28,690	29,276	58,728
1902.....	92	5,524	1,051,983	1,057,507	1,024,868
1903.....	47	644	6,803	7,447	15,427
1904.....	71	774	16,018	16,792	24,599

The number of persons affected by changes in hours of labor was the smallest in 1903 that has been reported in any year since the collection of such data was undertaken. It is in marked contrast with the report for the previous year when, by the operation of an act of Parliament, the hours of labor of industries employing women, children, and young persons were reduced, making a decrease of above 1,000,000 hours weekly in the textile industry alone.

The following table shows the number of persons affected by changes of hours in 1903 and 1904, and the net results of such changes, by industries:

NUMBER OF PERSONS AFFECTED BY CHANGES IN HOURS OF LABOR, AND NET AMOUNT OF DECREASE IN WEEKLY WORKING TIME, 1903 AND 1904.

Industries.	Number of persons affected by changes in hours of labor.		Net total decrease in hours per week.	
	1903.	1904.	1903.	1904.
Building.....	1,741	11,125	1,823	8,205
Mining and quarrying.....	58	98	178	* 258
Metal, engineering, and shipbuilding.....	930	2,360	2,670	4,181
Printing and allied trades.....	492	479	567	760
Woodworking and furnishing.....	416	131	624	458
Food, drink, and tobacco.....	632	430	1,474	3,275
Miscellaneous.....	110	89	420	89
Employees of public authorities.....	3,068	2,080	7,671	7,889
Total.....	7,447	16,792	15,427	24,599

* Increase.

METHODS OF ARRANGING CHANGES.—The changes in rates of wages and hours of labor reported were arranged by conciliation or mediation, by arbitration, by mutual agreement, or otherwise, and (in the case of wage changes only) by the operation of sliding scales.

The table given below shows the number of persons affected by changes in wages and hours of labor during each year for the ten-year period, 1895 to 1904, according to the methods of arranging such changes:

PERSONS AFFECTED BY CHANGES IN WAGES AND HOURS OF LABOR, BY METHODS OF ARRANGING CHANGES, 1895 TO 1904.

Year.	Persons affected by changes arranged without strikes.					Persons affected by changes arranged after strikes.			
	Under sliding scale.	By conciliation or mediation.	By arbitration.	By mutual arrangement or otherwise.	Total.	By conciliation or mediation.	By arbitration.	By mutual arrangement or otherwise.	Total.
CHANGES IN WAGES.									
1895.....	109,187	124,820	1,364	171,967	407,338	940	267	26,063	27,370
1896.....	134,038	43,601	4,920	360,075	542,634	11,559	174	51,037	62,770
1897.....	135,618	11,796	307	405,492	553,213	1,460	1,959	40,812	44,231
1898.....	165,953	25,659	3,850	764,622	960,084	1,015	2,050	48,970	52,035
1899.....	174,511	364,616	11,636	587,033	1,137,796	1,581	1,452	31,240	34,273
1900.....	180,489	469,520	5,827	421,590	1,077,426	1,030	3,780	50,150	54,960
1901.....	188,005	502,000	11,508	212,850	914,373	180	667	13,706	14,553
1902.....	169,838	536,959	2,600	165,010	874,407	136	1,457	11,206	12,799
1903.....	23,119	639,450	15,587	184,694	862,850	265	440	13,043	13,748
1904.....	25,628	570,479	232	193,385	789,724	.....	111	10,823	10,934
CHANGES IN HOURS.									
1895.....	.....	.....	540	19,609	20,149	420	84	2,082	2,586
1896.....	.....	300	1,500	85,474	87,274	2,758	.....	18,239	29,997
1897.....	.....	1,200	712	62,404	64,316	46	36	6,234	6,316
1898.....	.....	4,427	3,570	26,593	34,590	450	2,050	1,959	4,459
1899.....	.....	65	1,100	28,534	29,699	100	34	6,116	6,250
1900.....	.....	1,440	626	52,574	54,640	.....	285	2,801	3,086
1901.....	.....	450	13,195	12,860	26,505	9	53	2,709	2,771
1902.....	.....	3,330	.....	1,051,624	1,054,954	130	800	1,563	2,553
1903.....	.....	.....	12	6,995	7,007	15	.....	425	440
1904.....	.....	.....	.....	15,902	15,902	.....	30	860	890

The strike has for a number of years been an almost negligible factor in the matter of effecting changes either in wages or in hours of labor. So far as wages are concerned, the chief results are due to the use of the methods of conciliation or mediation, while the changes in hours of labor were nearly all effected by mutual arrangement or by methods other than arbitration, conciliation, or mediation.

Report of the Departmental Committee on Workmen's Compensation, 1904. 2 vols., 236 pp.; 404 pp. (Published by the Home Office.)

This report presents the results of an inquiry into the operation of the Workmen's Compensation Acts of 1897 and 1900 undertaken with a view to determining what amendments in the existing law are necessary or desirable, and to what additional classes of employments the provisions of the acts can properly be extended, with or without modification. Volume I of the report consists of three parts: Part I is devoted to an examination of the history, scope, and working of the two acts, and their relation to preexisting law. In Part II are considered in detail such amendments of the acts as have been suggested or appear to be required. Part III contains proposals for the extension of the provisions of the acts to other employments and for cognate legislation. This is followed by a brief summary of the recommendations made in the report and by appendices covering more than one hundred pages. Volume II consists of the minutes of evidence taken before the committee.

In the conduct of the investigation into the working of the acts of 1897 and 1900 the following lines of inquiry were pursued: (1) Whether these acts in their operation have been unduly productive of litigation, and if so, to what causes this result can be attributed, and how far the evil can be mitigated; (2) whether they have conduced to prevent the occurrence of accidents in the industries to which they have been applied; (3) in what manner they have affected existing accident or benefit funds; (4) whether they have imposed, or are likely to impose, any undue burden on the employer; (5) whether on the whole their operation has been beneficial to the workman; (6) under what conditions the acts have operated most beneficially.

With respect to the first of these inquiries the committee, after consideration of the evidence submitted by representatives of the workmen, of the employers, and of the insurance companies, arrived at the conclusion that the amount of actual litigation produced by these acts has been very small when compared with the great number of cases settled by agreement without recourse to legal aid or to proceedings in court; but that this proportion may, and ought to be, still further reduced by the amendment of those provisions of the acts which have been found to be most productive of actual or

threatened litigation, and by the provisions of more effective machinery for the expeditious and inexpensive settlement of doubtful questions of fact, especially by amendments tending to increase the importance of the functions of medical referees.

Concerning the second question, the committee concluded that the operation of the acts has had no marked or ascertainable effect, either one way or the other, upon the safety of the workmen.

As to the third inquiry, the committee found that the effect of these acts has been largely to put an end to those societies which previously were supported by the joint contributions of employers and workmen; while, on the other hand, the benefit clubs supported entirely by the workmen do not appear to have had their activity diminished in any way.

With regard to the fourth inquiry, the committee found that hitherto the pecuniary burden imposed by the acts upon the employers has not been excessive, but that this burden tends to increase, especially in consequence of the rapidity with which claims are growing and of the increasing number of permanent cases. The act of 1897 has not been sufficiently long in operation, in the opinion of the committee, to permit of any really trustworthy estimate being formed of the limits which this increase will ultimately reach, and the committee therefore believed that the greatest caution is required before the personal liability already imposed by the act on the employer is materially increased, especially by any legislation which may add to the indefiniteness and uncertainty of that liability, unless there are paramount reasons for the suggested change.

As to the question whether the acts have conferred substantial benefits on those classes of workmen who are in a position to take advantage of them, the committee concluded that the answer must be decidedly in the affirmative. It was found, however, that the Compensation Act of 1897 has largely increased the difficulties in the way of old and infirm men finding and retaining employment, and that the tendency is for these difficulties to grow.

With regard to the last inquiry, the committee found that wherever the organization of associations both of employers and employees was most complete, there was the least amount of litigation and the greatest satisfaction with the settlements reached. On the other hand, it was found that the act worked most unsatisfactorily and was most ineffective where labor was unorganized and the workman was obliged to resort to legal assistance; that this tendency is aggravated when the workman is in the service of a small employer without adequate capital or position to dispose the latter to be careful as to protecting himself by insurance, and that the system is least appropriate in the case of a casual laborer who has no fixed or settled occupation, but merely picks up jobs where he can.

After considering these questions the committee discussed in great detail amendments to and extensions of the acts of 1897 and 1900 that have been suggested or appear to be required. The discussion of these changes is taken up under the following heads: (1) The grounds for statutory compensation; (2) the persons entitled to receive compensation; (3) the persons liable to pay compensation; (4) the grounds on which compensation may be refused; (5) amount of compensation and methods of payment; (6) review, termination, and commutation of compensation; (7) relation of remedies under the Workmen's Compensation Act to remedies at common law and under the Employers' Liability Act, and the election of remedies; (8) machinery for carrying out the provisions of the act—arbitration, medical referees, jurisdiction of courts of first instance and of appeal; (9) statutory schemes; (10) the Workmen's Compensation Act, 1900.

The recommendations for the amendment and extension of the act of 1897 are as follows: That certain restrictions be placed on the workmen in regard to instituting litigation; that unless notice of the accident is given within six days of its occurrence, and of the claim within three months, no proceedings may be instituted without the permission of the court; that in industrial operations where a series of subcontractors employ workmen, each subcontractor be responsible for the subcontractors under him, though measures had been provided to enable him to protect himself; that if the injured workman fails to secure compensation under one act, he is to be permitted to pursue the alternative remedy; that the limitations concerning height of the building, the use of scaffolding, and the use of machinery be repealed; that the term "railway" include lines, siding, etc., not used for public traffic, as well as tramways; that the definitions of the words "wharf" and "warehouse" be made more specific; that laundries subject to the Factory Act, 1901, be included under the operations of the act; that the term "quarry" include all such establishments regardless of depth; that the term "engineering work" be made to include the construction and maintenance of telephone, telegraph, and similar electrical systems, in addition to the making and repairing of roads, sinking of wells, and other excavation work; that the fact of an accident occurring outside a particular place should not prevent the recovery of compensation if the injury was received in the performance of duty, though certain cases are excepted from the rule; that in the case of a workman injured while his services were temporarily loaned to another employer, the original employer be liable for compensation; that the term "dependent" be defined so as to include brother and sister in cases where total or partial dependency is proved in fact, and that the law in Scotland be made to include stepparents and stepchildren as dependents, so as to correspond in this respect to the law in England; that

special provision be made in the case both of nonresidents, and of aged, infirm, or maimed persons entitled to compensation; that the term "earnings" be defined to mean net earnings, and that where "average weekly earnings" are to be ascertained, a standard such as that provided for in the Employers' Liability Act, 1880, section 3, may be followed; that in the case of injured persons under 21 years of age, the weekly compensation may be fixed at an amount not exceeding 10 shillings (\$2.43) if half the wages previously earned would have been less than this sum, and in addition, that this amount may be increased with the lapse of time; that in fixing the compensation of the injured person, the arbitrator consider the difficulty of securing and retaining employment; that medical examinations be regulated so as to prevent them from being unduly burdensome to the workman, and in case of objection by the workman to a physician's report, a method of arbitration under the direction of the county court be provided; that in case of death, the employer be entitled to pay the compensation due the dependents into the court, which should be given power to act in such cases; that where the court orders the compensation to be paid in a lump sum, the amount should not exceed £500 (\$2,433.25); that where the two parties agree to settle the claim for a lump sum, such agreements be required to be registered in a county court, with a penalty for noncompliance. The recommendation concerning the act of 1900, which relates to agriculture, is that the act shall not apply to casual employment in agriculture.

The committee further recommends the application of the principle of the act of 1897 to seamen through an amendment of the Merchant Shipping Act, and suggests a special inquiry in the case of fishermen; the extension of its benefits to workers in workshops where five or more persons are employed; and the granting of power to the secretary of state to extend, after inquiry, the application of the act to other industries, subject to the approval of Parliament.

PRUSSIA.

Festschrift des Königlich Preussischen Statistischen Bureaus zur Jahrhundertfeier seines Bestehens. 1905. First part, xii, 271 pp. Second part, viii, 151 pp. Third part, xix pp., 116 plates.

The present work, which gives a history and outline of the Prussian statistical bureau, was published on the occasion of the one-hundredth anniversary of its organization. The work consists of three parts. The first part contains a brief outline of the official statistical work in Prussia before the organization of the regular bureau in 1805, an account of its subsequent growth and development, its functions, the character of its work, personnel and expenditures, a description and a list of its publications, and a register of the principal officers

of the bureau since its organization. The second part presents in a series of tables statistics relating to population, mortality, agriculture, forestry, mines and manufactures, transportation, education, taxation, and the election of members to the Prussian legislative assembly. These tables are arranged in various combinations by provinces, districts, and cities, and cover different periods from the organization of the bureau to the year 1904. The third part, under the title of "Statistischer Atlas," is intended to supplement the preceding part, and consists of a series of colored charts and diagrams illustrating in graphic presentations the data presented in the statistical tables of the second part of the report.

DECISIONS OF COURTS AFFECTING LABOR.

[Except in cases of special interest, the decisions here presented are restricted to those rendered by the Federal courts and the higher courts of the States and Territories. Only material portions of such decisions are reproduced, introductory and explanatory matter being given in the words of the editor.]

DECISIONS UNDER STATUTORY LAW.

EMPLOYERS' LIABILITY—MINE BOSS—NONDELEGABLE DUTIES—CONSTRUCTION OF STATUTE—*Smith v. Dayton Coal and Iron Company, Supreme Court of Tennessee, 92 Southwestern Reporter, page 62.*—Luke Smith sued to recover damages for injuries received as a consequence of the alleged neglect of duty by the mine boss under whom he worked in one of the above-named company's mines. Right of recovery was denied in the circuit court of Rhea County, on the ground that employment by the company of a competent mine boss, as required by chapter 170, Acts of 1881, relieved it of further responsibility in the case. On appeal this position was overruled and the case remanded for a new trial, for reasons appearing in the following, quoted from the opinion of the court, as given by Judge McAlister:

The duties of the inside mining boss are specifically defined by the act of 1881, and the company is required to employ him in obedience to the mandates of the statute. The question presented is whether, in the performance of his statutory duties, the mining boss acts as a vice principal, or whether he is a mere fellow-servant, as already stated. It is argued that our act of 1881 is a literal copy of chapter 1, Acts Pa. 1870 (P. L. 3), and that at the time our statute was enacted the Pennsylvania statute had undergone a uniform construction by the supreme court of that State. It was held by the Pennsylvania court that the duties imposed by section 8 were duties of the mine boss, whom the operator was by law compelled to employ, and, if the mine boss failed to discharge his duties, he was personally liable in damages and also to criminal prosecution. It is admitted that under the first section the company would be liable in damages for a breach of its statutory duty in failing to employ a competent and practical mining boss; but it is insisted that the company, having discharged its duty and employed a competent and practical mining boss, it is not liable in damages for his failure to perform the duties which the statute has enjoined upon him.

The act was again construed by the supreme court of Pennsylvania in 1879, in the case of *Del. & Hud. Canal Co. v. Carroll*, 89 Pa. 374. In that case it was said as follows:

"It is too plain for argument that, if the defendants have not violated said act, they are not responsible. In what respect have they transgressed its provisions? They employed a mining boss as required by the act, and there is no allegation that he was not competent and a practical man. No attempt was made to show that defendants were guilty of negligence in not employing a mining boss, that they employed an incompetent man, or that they employed him without knowledge of his capacity or fitness and without making inquiry as to his qualifications, as a man of ordinary prudence would do. The defendants, having placed such mining boss in charge of the work, are not in default. The negligence of the boss, if it exists, might make him liable to the plaintiffs. It certainly can not render this defendant liable under this act of the assembly."

The supreme court of West Virginia in *Williams v. Thacker Coal & Coke Co.*, 44 W. Va. 599, 30 S. E. 107, 40 L. R. A. 812, in construing a similar provision in a statute of that State, which was a copy of the Pennsylvania statute, used this language:

"The operator is left no choice, no discretion in the matter. Although he may himself be a practical miner, possessed of all the qualifications of a mine boss, yet under the statute he is compelled to employ such person. The legislature so far interferes with the private business of the capitalist as to require him to take into his employment a person whose experience in business and sound judgment equip him for such management and the oversight of the conduct of the mines as to reduce the danger thereof to a minimum. The duty of the operator or agent is to employ a competent mine boss according to the provisions of the statute, and when he has done so he has discharged his duty to his employees in relation to those duties which the statute prescribes shall be performed by such mine boss, and the operator or agent is not liable for injuries arising from the negligence of the mine boss, who is not a vice principal, as his duties are not delegated to him by his employer, but are prescribed by the statute; but he is a fellow-servant, and, in case of injury to other employees through his negligence, the master is not responsible."

It may be stated as a general rule that, when the statute of another State is adopted, the judicial construction and interpretation of that statute in the State of its origin is also imported and written in the statute by the adopting State. This rule, however, is subject to the important qualification that the judicial construction of said statute by the State of its origin does not contravene the well-established policy prevailing on said subject in the adopting State. As said by Endlich on Interpretation of Statutes, p. 518:

"But, as applied to transcribed statutes, this rule is undoubtedly subject to important qualifications. Whilst admitting that the construction put upon such statutes by the courts of the State from which they are borrowed is entitled to respectful consideration, and that only strong reasons will warrant a departure from it, its binding effect has been wholly denied, and it has been asserted that a statute of the kind in question stands upon the same footing, and is subject to the same rules of interpretation as any other legislative enactment. And it is manifest that the imported construction should prevail in so far as it is in harmony with the spirit and policy of the legislation of the home State, and should not, if the language of the act is fairly susceptible of another interpretation, be permitted to antagonize

other laws in the face of the latter or to conflict with its settled practice."

In *Jamison v. Burton*, 43 Iowa 285, it was said:

"The limitation that the construction by another State of a statute of that State enacted here will be valid only when consistent with the spirit and policy of our laws, is eminently proper. For otherwise we could not avail ourselves of the legislative wisdom of other States without introducing along with it incongruous and inharmonious judicial construction."

We think these authorities announce the true rule, and we proceed to inquire whether the imported construction of the transcribed statute contravenes the spirit and policy of our laws.

It must be admitted in view of the authorities that the duties devolved by the statute on the mining boss were not different from those that the company was obliged to perform at common law, and which the company would not have been authorized to delegate and thereby escape liability for the nonperformance of those duties. What, then, is the effect of the statute requiring the company to employ an inside overseer or mine boss and devolving upon him the duties which, at common law, belong to the company? As already seen, the Pennsylvania and West Virginia courts, in construing the statute, have held that the effect thereof was to shift the responsibility for the negligent performance of these duties upon the mining boss, since the company was compelled to employ him and his duties were specifically defined by the statute.

In this State the doctrine has always prevailed that it is the duty of the master to provide a reasonably safe permanent place of work for his employees, and that this duty can not be delegated, so as to exonerate the master from liability for a breach of his duty. In Pennsylvania it appears that a different rule has prevailed. In *Railroad v. Hughes*, 119 Pa. 314, 13 Atl. 289, it was said:

"If, however, the company employed competent and skillful persons for the purpose of inspection, and afforded them reasonable opportunities and facilities for the work under proper instruction, the company will not ordinarily be liable for the negligent performance of the work of their employees, to a fellow employee, unless the company knew, or by the exercise of diligence ought to have known, of the defective manner in which the work was being done. The court then held that a brakeman and a car inspector were fellow-servants in the same business and that the former assumed the risk of the negligence of the latter in common service."

In this State, however, it is uniformly held that a brakeman and a car inspector are not fellow-servants, but in different and distinct departments of the company's service (*Taylor v. Railroad*, 93 Tenn. 305, 27 S. W. 663), and that the company is liable for the negligence of the former whereby an injury is sustained by the latter. So that it is obvious that the rule with reference to a safe place to work and the fellow-servant doctrine is entirely different in this State from that which prevails in the State of Pennsylvania; hence the adjudications of that court, exempting a mining company from liability for the negligence of a mine boss employed in obedience to the mandates of the statute, which specifically defined his duties, were in entire accord with the general policy and legal system of that State regulating the relations of master and servant. We are of opinion, however, that

the decisions of that State and of the other States which exempt mining corporations from liability for the negligent acts of the mining boss are not in consonance with our general system defining the duties of master and servant.

The act of 1881 is entitled "An act to provide for the ventilation of coal mines and collieries for the protection of human life." But, under the construction of the act contended for, the company is relieved of all positive duty and responsibility in providing safeguards for the protection of human life, when it has appointed a competent and practical inside overseer or mining boss. Surely such a construction could never have been contemplated by the legislature, in view of the express object and purpose of the statute.

EMPLOYERS' LIABILITY—MINE REGULATIONS—PRACTICABILITY AS AFFECTING APPLICATION OF STATUTE—*Morris Coal Company v. Donley*—*Supreme Court of Ohio*, 76 *Northeastern Reporter*, page 945.—In this case Donley had secured judgment in the circuit court of Guernsey County in a suit for damages for injuries received by the falling in of the roof of a working place in a mine in which he was employed. The company appealed from this judgment and secured a reversal.

The statute involved (sec. 6871, Rev. Stat. 1905) requires miners to securely prop the roofs of working places under their control. Donley claimed that he was entitled to rely on the inspections and representations of the company, and that this case should be excepted from the operation of the statute, averring that the dangerous portion of the roof was so near the working place that the installation of timbers to support it would make the use of the cutting machine impracticable. It was on this point that the case turned, and the following paragraph quoted from the opinion of Judge Shauck shows the ruling of the supreme court:

The statute contains no term suggesting the intention that there should be an exception to its operation because of the presence of such conditions as are alleged. To introduce such an exception by construction would be an obvious attempt to avert the consequences of a supposed oversight on the part of the legislature; and the departure from safe rules of construction would not be excused by considerations leading to a clear conviction that the legislature did not deliberately intend to include the case presented within the provisions of the statute. The facts alleged to show that compliance with the statute was impracticable do not show more than that compliance with its provisions would have been attended with some inconvenience. For aught that appears, it would have been quite practicable either to remove from the roof of the room the slate which constituted the source of the danger or to prop the roof and continue to mine with hand tools to such an extent as the presence of the props might have made necessary. To introduce the suggested exception would be the abrogation, rather than the construction, of the statute.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—FELLOW-SERVANT LAW—OPERATION OF ROAD—*Mounce v. Lodwick Lumber Co., Court of Civil Appeals of Texas, 91 Southwestern Reporter, page 240.*—E. H. Mounce sued the Lodwick Lumber Company to recover damages for injuries received by him while in its service as a laborer. The district court of Harrison County had rendered judgment in favor of the company, from which Mounce appealed, securing a reversal and an order for a new trial.

The facts and rulings in the case appear in the following quotation from the opinion of the court of appeals, as prepared by Judge Rainey:

There is practically no conflict in the evidence, and the issue is whether or not it was of such a nature as warranted the trial judge to conclude that plaintiff was not entitled to recover. It appears that the Lodwick Lumber Company was the owner of a large sawmill in Marion County, Tex., and also owned and operated a line of railroad, extending from its mill to Harleton, a station on the main line of the Texas Southern Railroad. Mounce (appellant) was employed as a day laborer by the appellee. At the time of the injury the company was constructing a telephone line along its railroad from its mill to Harleton. Mounce and others loaded some telephone poles on the cars under the direction of one Wurtbaugh, general manager of said company, and were ordered to get on the cars and distribute the poles at the required intervals along the track of said railroad, some 30 or 40 yards apart. It took all the hands to properly execute the work. Mounce was on said train for said purpose, and after going some distance along the track, which was rough, and uneven, causing the cars to sway to and fro, a standard in one end of the car, which had not been properly secured slipped down, causing the poles to fall off, and the train, being pushed up under one end of the poles, raised the other end high in the air. At that time Wurtbaugh, the manager, cried out, "Whoa! look out!" in an excited manner, which caused Mounce to look around, and, seeing the poles rising up, he became frightened, jumped from the train, and was injured. The standard fitted in a socket, and a pin was run through to keep it from slipping down. It is not shown which one of the employees fixed the standard in the socket. Mounce says he knew nothing of its condition, nor of the condition of the track. We surmise that the learned trial judge concluded from the evidence that Mounce was not engaged in the work of operating the cars, and therefore the negligence, if any, of his fellow-servants would not authorize a recovery against the lumber company; hence the peremptory instruction to the jury.

Under our statute the negligence of a servant, when it causes injury to a fellow-servant engaged in the work of operating the cars, authorizes a recovery against the employer for such injury. Was Mounce engaged in the work of operating the cars? We think so. The cars were being used in hauling and placing the poles that they might be erected for stringing thereon the necessary wires for the construction of a telephone line. Mounce was employed at the time in loading the poles, going along with them, and assisting in throwing them off the cars at convenient distances for their erection. This work was required in the operation of the cars, and in doing this work Mounce comes within the contemplation of the statute where it provides that

every person, receiver, or corporation operating a railroad shall be liable for all damages sustained by any servant or employee thereof, while engaged in the work of operating the cars of such railroad by reason of the negligence of a fellow-servant. (Sayles' Ann. Civ. St. 1897, art. 4560f; *Railway Co. v. Webb* (Tex. Civ. App.) 72 S. W. 1045; *Railway Co. v. Pelfrey* (Tex. Civ. App.) 80 S. W. 1036.) It will be noted that the statute makes every person operating a railroad liable for such negligence, which we think makes untenable the distinction as to liability attempted to be drawn by counsel for appellee between a private railway and those operated for the public. So if there was negligence of a fellow-servant in adjusting the standard, and such negligence was not known to Mounce, the question of liability for that reason should have been submitted to the jury. So should the question as to the condition of the track.

We do not think the halloaing, "Whoa! look out!" in an excited manner by the manager, Wurtbaugh, should be considered an act of negligence, as it was evidently made for the purpose of preventing injury; but it may be considered in connection with the circumstances and conditions surrounding the occurrence in determining whether Mounce was warranted in jumping from the train. In other words, it was a circumstance in determining whether there was such an appearance of danger at the time as to cause an ordinarily prudent person to jump from the car to avoid anticipated danger. It is immaterial that there was in fact no danger; but was the appearance such as to cause an ordinarily prudent man to so believe, and jump, as Mounce did?

The judgment is reversed, and the cause remanded.

ENTICING SERVANTS—LIABILITY—CONSTRUCTION OF STATUTE—*Thacker Coal and Coke Company v. Burke et al.*, *Supreme Court of Appeals of West Virginia*, 53 *Southeastern Reporter*, page 161:—The Thacker Coal and Coke Company had sued Charles Burke and five others, members of the United Mine Workers of America, to recover damages for enticing employees of the company to leave its service. The declaration was demurred to, as not showing sufficient grounds for action, which demurrer was sustained in the circuit court of Mingo County. On appeal, however, this ruling was reversed, and the case was remanded to the circuit court. No facts were in dispute, the question being one of legal rights and liabilities only.

The ruling of the court on the disputed points is given in the following extracts from its opinion as announced by Judge Brannon:

Certain legal principles control the case. In *Transportation Co. v. Oil Co.*, 50 W. Va. 611, 40 S. E. 591, 56 L. R. A. 804, 88 Am. St. Rep. 895, we find it stated, on authority there given, that "if one wantonly and maliciously, whether for his own benefit or not, induces a person to violate his contract with a third person to the injury of that third person, it is actionable." We find that holding confirmed in *Angle v. Chicago Railway*, 151 U. S. 1, 14 Sup. Ct. 240, 38 L. Ed. 55, in the language following: "If one maliciously interferes in a contract between two parties, and induces one of the parties to

contract, to the injury of the other, the party injured can sustain an action against the wrongdoer. When a man does an act which in law and fact is a wrongful act, and injury to another results from it as a natural and probable consequence, an action on the case will lie." If additional authority were needed for such a proposition of common sense and justice, see the case decided by the highest English tribunal in 1901, *Quinn v. Leatham*, App. Cases 1901, 495. What I have already said refers to contracts in general. As to the particular contract between master and servant, the law is, if possible, yet more decided. The common law says that one who causes a breach of that contract is liable to damages. * * * The Supreme Court of the United States in *Angle v. Chicago Railway*, cited, stated the rule thus: "Wherever a man does an act which in law and in fact is a wrongful act, and such an act as may, as a natural and probable consequence of it, produce injury to another, and which in the particular case does produce an injury, an action on the case will lie." It is generally treated as a common-law cause of action. The general principle applicable to contracts in general would give action against a third party for wrongfully causing the breach of contract between master and servant; but as to this particular contract the law has been long settled.

The first count of the declaration alleges that the company is owner and operator of a coal mine, and was engaged on the 8th day of August, 1901, in the business of mining coal from the mine; that, in order to carry on the business, it was necessary for the plaintiff to employ, and it did employ, a large number of men to work in the mine, who were engaged in the company's service in working the mine and loading coal on railroad cars for shipment to parties with whom the plaintiff had contracts to furnish coal; that the defendants, well knowing these facts, but contriving and wickedly and maliciously intending to injure the plaintiff in its business, unlawfully, wrongfully, maliciously, without justifiable cause, without the consent and against the will of the plaintiff, molested, obstructed, and hindered the plaintiff in its said business "by willfully, wrongfully, and maliciously persuading, inducing, enticing, and procuring said servants of the plaintiff, employed as aforesaid, to absent themselves and depart from the plaintiff's service;" that on pretext, and by reason of such persuasion, enticement, and procuration, the said servants on the date aforesaid, without license and against the will and consent of the plaintiff, wrongfully absented themselves and departed from said service, and continued to do so; that the plaintiff was unable to employ other servants to work in its mine in the place of the servants so enticed away, and was thereby prevented from prosecuting and carrying on its business as extensively and profitably as it could and would have done, had not its servants been induced and enticed by the defendants to quit its service. The first count does not, in words, state an express contract for service between employer and employee. By the language used in the books a contract must exist. This count says the miners were "employed" by the plaintiff and in actual service. Now, if the law gives action for the enticement of a servant, it is not conceivable that a third person can maliciously entice away a lot of employees simply because there was no contract fixing their term of service. *The relation of master and servant exists. In such case there is a*

contract recognized by law, an implied contract by which the employee can recover for his service. By entering such service the employee agrees, contracts, to work. It is no difference that he can quit when he pleases. In *Walker v. Cronin*, 107 Mass. 555, was such a count, and the court held it good. *Frank v. Herold*, 63 N. J. Eq. 443, 52 Atl. 152, meets this objection. It says: "To make out the relation of master and servant, it is not necessary that there be any written, or even verbal, contract between the parties to work for any particular length of time, but the relation exists where one person is willing to work for another from day to day, and that other desires the labor and makes his business arrangements accordingly. Employers, where third parties interfere with their employees, against the latter's consent, and endeavor by unlawful means to induce them to quit work, have a right to sue for relief." In *Chipley v. Atkinson*, 23 Fla. 206, 1 South. 934, 11 Am. St. Rep. 367, it was held that an action for procuring discharge of a servant could be maintained, though no time of service was fixed. The court said that so long as the servant chose to continue another person could not interfere, and "neither the fact that the term of service interrupted is not for a fixed period nor the fact that there is not a right of action against the person who is induced or influenced to terminate the service, or who refuses to perform his agreement, is of itself a bar of action against a third person maliciously and wantonly procuring the termination of or a refusal to perform the agreement." In *Vegelahn v. Guntner*, 167 Mass. 92; 44 N. E. 1077, 35 L. R. A. 722, 57 Am. St. Rep. 443, it is held unlawful to conspire to prevent employees from continuing in service, though there is no fixed period of service. This count is interpreted as alleging a subsisting contract between the company and its servants in process of execution. Even where there is a full right of competition, where one party does an act hurtful to another, even though it be maliciously done, we held it to be justified and not actionable, except where it produced the breach of a contract. But we said that, if there was a contract between a competitor and his customers in trade, any action by a third person causing a breach of that contract between its parties was wrongful action, and subject to an action for damages, even though it was done for the benefit of the interfering party in the lawful competition of trade. We held that the advancement of the interest of the third party for self-preservation in trade would not justify his causing one of the parties to that contract to break it. (*Transportation Co. v. Oil Co.*, 50 W. Va. 611, 40 S. E. 591, 56 L. R. A. 804, 88 Am. St. Rep. 895.) A party can not have a justifiable cause to instigate, to move, the breach of a contract between master and servant. We repeat that the law says that, where there is such a contract and a third party causes its violation, he is liable to an action.

The second count alleges that the plaintiff, to secure miners from other States, made special written contracts with certain miners, to wit, "William Linder and eight others, residents of North Carolina, whereby these miners agreed to come to the plaintiff and enter into service and engage in digging and shipping coal from its mine at a certain fixed rate per ton," specifying the rate, and that the company paid their fares of \$11.50 each from North Carolina to the mine, under contract with the miners that the fares were to be repaid the plaintiff out of the wages earned by the miners in mining for the

plaintiff; that on the arrival near the mine the defendants, knowing of such contract, wrongfully, maliciously, and with unlawful purpose to injure the business of the plaintiff, and against the consent of the plaintiff, induced and enticed said miners to break their several contracts of service and refuse to enter the service of the plaintiff according to the written contract, and persuaded and induced and enticed them to depart, and that by reason of said persuasion and enticement said miners, engaged under said written contract, wholly failed and refused to perform their contracts and enter the service of the plaintiff, and immediately departed from the place where they were employed to work without having entered the service of the plaintiff, and without having paid the plaintiff the money advanced for said railroad fare; and that none of the miners have returned to work in the said mine. Under the principles stated above this count shows a good cause of action.

The defendants rely on Code of 1899, p. 1053, sec. 14, reading as follows: "Nor shall any person or persons or combination of persons by force, threats, menace or intimidation of any kind, prevent or attempt to prevent from working in or about any mine, any person or persons who have the lawful right to work in or about the same, and who desire so to work; but this provision shall not be so construed as to prevent any two or more persons from associating themselves together under the name of Knights of Labor, or any other name they may desire, for any lawful purpose, or from using moral suasion or lawful argument, to induce any one not to work on and about any mine." This statute is a penal, criminal statute; for it makes the acts in it specified unlawful, and by section 17 imposes a punishment. This is a criminal act. It does not pretend to create rights between individuals. It prohibits certain acts, and the proviso simply curtails the scope of the enactment by saying that the enacting clause shall not be construed to impair any right already existing, if existing, to join the organizations therein specified or use moral suasion. It is only a curb upon the enactment. It does not affirmatively grant, create, or originate those rights. It does not make them lawful, if before unlawful. And could the legislature authorize any person to violate a contract?

INSPECTION OF FACTORIES AND WORKSHOPS—STREET RAILWAY REPAIR SHOP—CONSTRUCTION OF STATUTE—*Hoffmeyer v. State, Appellate Court of Indiana, 77 Northeastern Reporter, page 372.*—This was an action by the State against Fred Hoffmeyer for failure to report an accident under the factory-inspection law of Indiana. The shop was owned and controlled by a street-railway company, and was maintained for the purpose of making or repairing articles for use in the operation and maintenance of the railway and for no other purpose. The law embraces any "manufacturing or mercantile establishment, mine, quarry, laundry, renovating works, bakery, or printing office," and is by its own provisions made to apply to any "mill, factory, workshop, store, place of trade, or other establishment where goods, wares, or merchandise are manufactured or offered for sale,

or any mine or quarry where coal and stone are mined and quarried for the market, and persons are employed for hire." (Burns, A. S., 1901, sec. 7087r.) Accidents or injuries to persons in such establishments are, under the law, to be reported within forty-eight hours after the occurrence of the same. This duty devolved upon Hoffmeyer, as superintendent of the shop, and for failure to make the report he was, on complaint filed by a State factory inspector, brought before a justice of the peace and fined. On appeal to the criminal court of Marion County this judgment was affirmed, whereupon a second appeal was taken to the appellate court, resulting again in an affirmance.

Hoffmeyer's contention was that the railway company was not engaged in manufacturing; that it is not organized under any part or any of the provisions of the manufacturing and mining act of the State, or of the voluntary association act; that there was no manufacture of articles for sale, nor indeed any manufacture, unless the making of repairs and of such advertising signs in use on or about the cars be classed as such, and that for these reasons the statute does not apply to the case in hand. This view was rejected by the court, as appears from the following quotation from the opinion of Judge Comstock, who spoke for the court:

The word "workshop" is defined as "a shop where any manufacture or handiwork is carried on." (Webster's Dictionary.) Whether for the purpose of repair "or manufacture—that is, to modify or change natural substances so that they become articles of value or use" (Anderson's Law Dictionary, p. 654)—is not material. The words of said eighteenth section [sec. 7087r] may be properly read as written: "Manufacturing or mercantile works, or bakery, or printing office." The word "and" preceding "persons are employed for hire" at the conclusion of said section is properly connected with and qualify all the places designated preceding it. The words "where goods, wares, or merchandise," etc., apply to and qualify only such other places as are not otherwise therein described. We then have the statute before us, applying to a workshop where persons are employed for hire. Under this construction the mechanic working in his own shop or the farmer doing his own work or repairing, instances cited by appellant, would not come within the statute. *Baltimore & Ohio R. R. Co. v. Cavanaugh* (Ind. App.) 71 N. E. 239 is not applicable to this case. It is obvious from the scope of the statute that it was the intention of the legislature by many provisions of the act, to reduce the hazard of certain employment in which machinery is used. (*Monteith v. Kokomo, etc., Co.*, 159 Ind. 153, 64 N. E. 610, 58 L. R. A. 944.) It limits the hours of labor for minors of both sexes; forbids the employment of children under 14 years of age; makes it the duty of the employer to furnish contrivances for the safety of the employees and in said section 8 to report to the State inspector of labor all accidents or injuries to any persons on said premises within 48 hours of the time of the accident. We can not admit that the legislature intended to be less mindful

of the employer of hired labor in a shop where repair work only is done than when the same laborer is employed in an establishment engaged in manufacturing articles from the raw material, when in both places the same conditions exist as to machinery and the hazards encountered. It is apparent from the whole act that the purpose of the legislature was to enact a statute designed to protect the life and health of the laborer working for hire in places where dangerous machinery is used. Every legislative act must have a reasonable construction. (Potter's Dwarrris on Statutes, p. 145.)

The intent of the legislature is to be collected from the general view of the whole of an act. (Potter's Dwarrris, supra, 193.) "In considering acts of Parliament, judges are to look at the language of the whole act, and if they find in any particular clause an expression not so large and extensive in its import as those used in other parts of the act, and upon a view of the whole act they can collect from the more large and extensive expressions used in other parts, the real intention of the legislature, it is their duty to give effect to the larger expressions." (Potter's Dwarrris, supra, 194.) The rule of strict construction applies to criminal statutes. This rule "however, whenever invoked, comes attended with qualifications and other rules no less important; and it is by the light which each contributes that the meaning must be determined. Among them is the rule that the sense of the words is to be adopted which best harmonizes with the context, and promotes in the fullest manner the policy and object of the legislature. The paramount object in construing penal as well as other statutes, is to ascertain the legislative intent; and the rule of strict construction is not violated by permitting the words to have their full meaning, or the more extensive of two meanings, when best effectuating the intention," etc. (Maxwell on Interpretation of Statutes, 333.)

The facts show that the principal work of the shop was in the way of repair for the purpose of keeping the cars and other appliances of the traction company in condition to carry on its business; that to an inconsiderable extent some articles were manufactured, but the shop in question is within the statute, being a workshop as defined by Webster, supra, and the judgment is therefore affirmed.

DECISIONS UNDER COMMON LAW.

EMPLOYERS' LIABILITY—RAILWAY RELIEF ASSOCIATIONS—ACCEPTANCE OF BENEFITS—RIGHT TO SUE—*Pennsylvania Company v. Chapman*, *Supreme Court of Illinois*, 77 *Northeastern Reporter*, page 248.—James A. Chapman sued the above-named company to recover damages for injuries received while in its service. Judgment in his favor was affirmed in the appellate court, and, on further appeal, in the supreme court of the State. The main defense of the company was that since Chapman had accepted benefits from the relief department of the road he was, under his contract, debarred from prosecuting any further claim. It appeared that his contract as a member of the relief department provided that he should receive benefits at the rate of \$1.50 per day for 52 weeks, if his injury should continue so long, and 75 cents per day thereafter during the continuance of

disability. After about 30 weeks' payment of benefits Chapman was given a "return to duty" card, but only worked about a week, when his wound broke out afresh, so that he was unable to continue working, and he applied for further benefits, which were denied.

The opinion in the case presents no other point of interest than that bearing on this question, on which Judge Wilkin, speaking for the court, said:

It is insisted by counsel that plaintiff waived his right of action against appellant by accepting benefits from the relief department, and that appellant is entitled to the benefit of the contract with the relief department. A similar contract was before us in the case of *Eckman v. Chicago, Burlington & Quincy Railroad Co.*, 169 Ill. 312, 48 N. E. 496, 38 L. R. A. 750 [see Bulletin 15, p. 245], and we there held that such agreements were valid and binding between the parties, and that the voluntary acceptance by a railroad employee of the benefits provided for in such an agreement, with the full knowledge that such contract provided that the acceptance of benefits under the same should operate as satisfaction of all claims against the railroad company by which he was employed, on account of injuries received, would be a bar to a subsequent suit for such injury. It is the receipt of benefits under the contract, and not the contract itself, that binds him. It is not claimed in this case that the plaintiff received the full benefits he was entitled to under his agreement with the relief department. On the contrary, the undisputed evidence is that his disability continued after he was given the card to return to duty and that his application for further benefits was refused. The by-laws, as we have said, entitled him to receive \$1.50 per day for 52 weeks, if his disability continued so long. He only received that amount for about 30 weeks, and was refused payment for the remainder of the time. The most that could be claimed would be that the medical examiner's "return to duty card" would be *prima facie* proof that his disability was removed. Here the evidence shows that his injury returned within a week, and the by-laws of the department clearly contemplate that in such case the relief benefits shall continue. Admitting this, however, counsel for appellant state their contention on this branch of the case as follows: "Our position upon this point is that the intended effect of the contract was that the acceptance of benefits—not all the benefits, but any benefits—under the contract by appellee was intended to have the effect of releasing any cause of action the appellee then had for the injuries received." If this position is tenable, then, if plaintiff had received a single week's benefits and been denied and refused all further payments, however serious may have been his injury, he would have been absolutely barred of his action against the company.

While we see no reason why, under the facts, the appellant company may not avail itself of the benefits of the agreement between the relief department of the Panhandle Company and plaintiff, that contract must receive a reasonable construction, and it must appear that the contract, so reasonably construed, was complied with on the part of the appellant. We agree with counsel that the contract must be interpreted according to the intent of the parties, but we do not think it can be seriously contended that it was contemplated in this case

that either party should be bound by a partial performance on the part of the other. The whole contract must be construed together. The agreement on the part of the plaintiff that the acceptance of benefits from the relief fund should operate as a release of all claim for damages against the company is to be construed in connection with the by-laws, which amount to an agreement on the part of the relief department that it would pay him certain specified benefits. A party can not be allowed to avail himself of the benefits of a contract which he has admittedly violated. If the defendant below had shown that the plaintiff received the full benefit of his contract or that his failure to do so was the result of his own fault, it might well have been said that this suit was thereby barred. That is not this case, the distinguishing feature of which is that the relief department refused to pay further benefits. Had the plaintiff refused to receive those benefits, as in cases cited by counsel, a very different question would be here presented. The breach of the contract in this case was that of the defendant alone. To sustain the position of counsel for appellant would be to hold that, whenever an employee of a railroad company becomes a member of the relief department and receives any benefits whatever therefrom, he must be conclusively held to have elected to look to that department alone for all damages sustained while in the service of the company. We know of no authority or good reason for such a position. In our opinion, upon the failure on the part of the company to comply with the terms of the agreement, the plaintiff had the right to bring his action against it, and that the company is only entitled to credit for the amount shown to have been paid by the relief department, but can not successfully plead the agreement in bar of this action without showing a compliance with the same on its part.

INTERFERENCE WITH EMPLOYMENT—INTIMIDATION—BRIBERY—BENEFITS OF TRADE UNIONS—*Everett Waddey Company et al. v. Richmond Typographical Union No. 90 et al., Supreme Court of Appeals of Virginia, 53 Southeastern Reporter, page 273.*—This case was before the chancery court of Richmond on proceedings by the Richmond Typothetæ, employing printers, against the local branch of the Typographical Union. The object of these proceedings was to procure an injunction against the union and its members to restrain them from interfering with the business of the employing printers. Conspiracy, picketing, enticement of employees, bribery by way of free transportation and the payment of strike benefits, and other forms of interference were charged. A preliminary injunction was granted in the chancery court, but was dissolved on hearing. The members of the Typothetæ then appealed to the court of appeals, where the order of the court below was affirmed, nothing in the evidence showing such action on the part of the strikers as to warrant the issuing of an injunction against them.

A point of some interest in the opinion of the court, as delivered by Judge Cardwell, is the ruling as to bribery. The charge of bribery

rested in part on a single alleged instance which was not well proved, and on the alleged payment of strike benefits to employees if they would leave service. On this latter subject Judge Cardwell said:

Bribery is not only unlawful but criminal, and when resorted to with a malicious purpose to injure a third party in his business, property or personal liberty it would unquestionably afford ground for equitable interposition by injunction, if practiced in such a manner and to such extent that the party injured, or intended to be injured, could not obtain an adequate remedy at law for his injuries; but we have not been cited to any case, nor have we been able to find a case which holds that the payment of weekly benefits or transportation, etc., to members of a labor union is per se bribery. It is the rule of such union to pay weekly benefits, transportation, etc., to its members, and that when a person becomes a member of the union he also becomes entitled to these benefits. It seems to have been the rule of the union, as old as the union itself, and was therefore not put in force because of this strike. It is, of course, one of the inducements held out to nonmembers to become members of the union, and is doubtless used as one of the arguments to induce persons to join the union, and it is the rule governing like associations, such as secret orders, beneficial societies, etc., and we have seen it nowhere questioned that such union or society have the right to make and carry out such a rule in the government and control of their union or society. When one becomes a member of such a union he becomes entitled to the benefits given by the union, and if he receives any of them the giving or taking of such benefits clearly could not be characterized as bribery.

LABOR ORGANIZATIONS—INJUNCTION—CONTEMPT—LEVY OF FINE—*Franklin Union, No. 4, v. People, Supreme Court of Illinois, 77 Northeastern Reporter, page 176.*—This case arose in the superior court of Cook County, in which an injunction had been granted against the union, for the violation of which a fine had subsequently been assessed. [See Bulletin 51, page 462.] From this judgment an appeal was taken to the appellate court and subsequently to the supreme court of the State, in both of which the action of the court below was affirmed, two judges of the supreme court dissenting. The parties in the case were the Chicago Typothetæ, a voluntary association of employing printers, and the union named, which is an incorporated body of employees in the printing trade. Cases involving individual strikers were also joined with the case of the union in the hearing on appeal. There was a strike of the workmen in an effort to secure the form of contract desired by them, followed by picketing and, as was alleged, a systematic course of violence, threats, and intimidation. The evidence was more fully gone into in the hearing before the superior court, reported in Bulletin 51, than was the case in the supreme court. Questions of efficiency of parties and of the jurisdiction of the courts were discussed at length by the latter,

and the case was held to be properly before the court. The general principles controlling were largely such as were involved in *O'Brien v. People*, 75 N. E. 108 [see Bulletin 62, page 324], to which reference was frequently made.

Judge Hand, who delivered the opinion of the court, after stating the facts in the case and deciding the points above mentioned, reviewed the charge that Franklin Union No. 4, its officers and members, had conspired to do the unlawful acts complained of. After conceding the right of laborers to organize and to leave employment, the judge reviewed the evidence showing the connection of the union with the acts of violence, concluding as follows:

It appears that the strike was inaugurated by Franklin Union No. 4; that it provided a place in which the strikers might congregate near the business places of the members of the Chicago Typothetæ; that it raised a fund by assessing the members of the union that did not go out upon the strike; that said fund was used by it to maintain its members who did go out, while they were engaged in the strike; that its regular committees actively sought to induce persons in the employ of members of the Chicago Typothetæ, or who sought employment from them, not to remain in their employ or not to accept employment from them, and that many of its members were actively engaged in picketing and in the use of force and intimidation against the employees of the members of the association or persons seeking employment from them. It is clear that the violence, force, threats, intimidation, and coercion which immediately followed the inauguration of the strike on October 5th, in the vicinity of the headquarters of Franklin Union No. 4 and the business places of the members of the Chicago Typothetæ, was the direct result of the action of Franklin Union No. 4 at the meeting of September 27th, and of the action of the union and its officers thereafter, and the results which followed were those which Franklin Union No. 4, and its officers, were bound, in law, to know would likely follow their action in inaugurating and carrying on what counsel characterized as an industrial war, and Franklin Union No. 4, having set in motion the force which produced the results pointed out, can not excuse itself for the part it took in the conspiracy by the statement of its officers that they advised the members of the union to be orderly and to obey the law.

The strong arm of the law would be short, indeed, if a member of Franklin Union No. 4, who was guilty of using violence, force, threats, and intimidation, can alone be punished, and the corporation—the organized entity—which organized the strike, furnished the money to maintain it, and molded, shaped, and conducted it, through its officers, from regular headquarters maintained by it, can not be reached and punished for the force, violence, threats, and intimidation which naturally would, and did, flow from the unlawful acts which it has instigated its members to commit. We think the evidence clear and unequivocal that Franklin Union No. 4 was a party to the conspiracy alleged in the bill to exist, and that it was properly found guilty of a violation of the injunction.

As to the question of damage and the assessment of a fine the court said:

It is next urged that it does not appear that the members of the Chicago Typothetæ have been damaged by the action of Franklin Union No. 4. The bill sets up a state of facts which, if true, conclusively show that, if the business of the members of the Chicago Typothetæ was broken up by said Franklin Union No. 4, its officers and members, inducing the employees of the members of said association to abandon their employment and by preventing other persons from entering their employment, the members of said association would suffer irreparable injury. The truthfulness of this averment of the bill can not be questioned in this proceeding. Nor do we think the fine imposed upon Franklin Union No. 4 of \$1,000 excessive. The violation of the injunction was flagrant and often repeated, and the imposition of a nominal fine would not have been an adequate punishment of Franklin Union No. 4 or a vindication of the law.

Other grounds of reversal have been urged. They are, however, extremely technical in character and without merit. Finding no reversible error in the several records involved in the several appeals here considered, the judgment of the appellate court in all of said cases will be affirmed.

Judgments affirmed.

LAWS OF VARIOUS STATES RELATING TO LABOR, ENACTED SINCE JANUARY 1, 1904.

[The Tenth Special Report of this Bureau contains all laws of the various States and Territories and of the United States relating to labor, in force January 1, 1904. Later enactments are reproduced in successive issues of the Bulletin from time to time as published, beginning with Bulletin No. 57, the issue of March, 1905.]

ARKANSAS.

ACTS OF 1905.

Act No. 49.—*Hours of labor of employees in saw and planing mills.*

SECTION 1. On and after the passage of this act, ten hours shall constitute a legal day's work for all classes of workmen and laborers, designated in section 2 of this act.

SEC. 2. This act shall apply to all associations of persons, companies, or corporations, engaged in the business of operating or constructing saw and planing mills in this State, and to all workmen and laborers now, or hereafter to be employed by any such association, company, or corporation, in any department relating to the running and management of said mills.

SEC. 3. Any association, company, or corporation engaged in the business of operating or construction of saw and planing mills in the State as aforesaid, or any officer or agent thereof, who shall exact more hours of labor than is herein fixed as a day's labor, or who shall discharge or refuse to further employ any servant or employee by reason of his refusal or unwillingness to perform more than ten hours of labor per day, or who shall fail to comply with, violate, or directly or indirectly evade the provisions of this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined in any sum not less than twenty-five dollars, nor more than two hundred dollars, to be paid into the common school fund: *Provided*, That each day's violation of this act or of any part thereof shall be considered a separate offense: *Provided, however*, That nothing in this act shall prevent employer and employee, as mentioned in section 2 of this act, from contracting for a less number of hours for a legal day's work than is mentioned in section 1 of this act.

Approved February 23, 1905.

Act No. 143.—*Payment of wages in scrip.*

SECTION 1. It shall be unlawful for any corporation, company, firm, or person, engaged in any trade or business in this State, either directly or indirectly, to issue, sell, give or deliver to any person employed by such corporation, company, firm, or person, in payment of wages due such laborer, earned by him, any scrip, token, draft, check, or other evidence of indebtedness, payable or redeemable otherwise than in lawful money, at the regular pay day of such corporation, company, firm, or person. And if any such scrip, token, draft, check, or other evidence of indebtedness be so issued, sold, given, or delivered to such laborer, it shall be construed, taken and held in all courts and places to be a promise to pay the sum specified therein, in lawful money, by the corporation, company, firm, or person issuing, selling, giving, or delivering the same to the person named therein, or the holder thereof. And the corporation, company, firm, or person so issuing, selling, giving, or delivering the same shall, moreover, be guilty of a misdemeanor, and upon conviction thereof shall be fined not less than twenty-five dollars (\$25) and not more than one hundred dollars (\$100). And at the discretion of the court trying the same, the officer or agent of the corporation, company, firm, or person issuing, selling, giving, or delivering the same, may be imprisoned not less than ten, nor more than thirty days.

SEC. 2. If any corporation, company, firm, or person shall coerce, or compel, or attempt to coerce or compel, any employee in its, theirs, or his employment to purchase goods or supplies in payment of wages due him or earned by him, from any corporation, company, firm, or person, such first-named corporation, company, firm, or person shall be guilty of a misdemeanor, and upon conviction thereof shall be punished as provided in the preceding section.

SEC. 3. If any such corporation, company, firm, or person shall directly or indirectly, sell to any such employee, in payment of wages due or earned by him, goods or supplies at prices higher than a reasonable or current market value thereof in cash, such corporation, company, firm, or person shall be liable to such employee, in a civil action in double the amount of the charges made and paid for such goods and supplies, in excess of the reasonable or current value in cash thereof: *Provided*, That the provisions of this act do not apply to coal mines, when not [sic] less than twenty (20) men are employed under the ground.

Approved April 5, 1905.

ACT No. 179.—*Railroads—Height of intersecting trolley wires over tracks.*

SECTION 1. All street railway companies or corporations operating cars by electricity, or by overhead wires, shall construct and maintain its wires at a height of not less than twenty-two feet above the top of the rail or the railroad track crossed by such street railway company, and the wires of such street railway company shall be guarded, or provided with fenders or guard wires, so as to prevent the same from coming in contact with the cars, track, or telegraph line along the track of such railroad company.

Approved April 13, 1905.

ACT No. 214.—*Blacklisting.*

SECTION 1. Every person who shall, in this State, send or deliver, or shall make or cause to be made for the purpose of being delivered or sent, or shall part with the possession of any paper, letter, or writing, with or without a name signed thereto, or sign with a fictitious name, or with any letter, mark or other designation, or shall publish or cause to be published any false statement for the purpose of preventing such other person from obtaining employment in this State or elsewhere, and every person who shall "blacklist" any person or persons, by writing, printing, publishing, or causing the same to be done, the name or any mark or designation representing the name of any person in any paper, pamphlet, circular, or book, together with any false statement concerning said persons so named, or shall publish that any one is a member of any secret organization, for the purpose of preventing such other person from securing employment, or any person who shall do any of these things mentioned in this section for the purpose of causing the discharge of any person employed by any railroad or other company, corporation or individuals, shall on conviction, be adjudged guilty of a misdemeanor and be fined in the sum of not less than one hundred dollars (\$100), nor more than five hundred dollars (\$500), or imprisonment in the county jail for twelve months, or both such fine and imprisonment.

Approved April 27, 1905.

ACT No. 219.—*Weighing coal at mines.*

SECTION 1. It shall be unlawful for any mine owner, lessee, or operator of coal mines in this State, where ten or more men are employed underground, employing miners at bushel or ton rates, or other quantity, to pass the output of coal mined by said miners over any screen or any other devise [device] which shall take any part from the value thereof before the same shall have been weighed and duly credited to the employee sending the same to the surface, and accounted for at the legal rate of weights as fixed by the laws of Arkansas, and no employee within the meaning of this act shall be deemed to have waived any right accruing to him under this section by any contract he may make contrary to the provisions thereof, and any provisions, contract, or agreement between mine owners, lessees, or operators thereof, and the miners employed therein, whereby the provisions of this act are waived, modified or annulled, shall be void and of no effect, and the coal sent to the surface shall be accepted or rejected; and if accepted, shall be weighed in accordance with the provisions of this act, and right of action shall not be invalidated by reason of any contract or agreement; and any owner, agent, lessee, or operator of any coal mine in this State, where ten or more men are employed underground, who shall knowingly violate any of the provisions of this section, shall be deemed guilty of a misdemeanor, and upon conviction shall be punished by a fine of not less than two hundred dollars nor more than five hundred dollars for each offense, or by imprisonment in the county jail for a period of not less than sixty days nor more than six months, or both such fine and imprisonment; and each day any mine or mines are operated thereafter, shall be a separate and distinct offense; proceedings to be instituted in any court having competent jurisdiction.

(This bill having remained with the governor five days (Sunday excepted) and the general assembly being in session, it has become a law this May 1, 1905.)

ACT No. 225.—*Mine regulations.*

SECTION 1. Section 5337 of Kirby's Digest [shall] be amended so as to read as follows:

Section 5337. The owner, agent, or operator of each and every coal mine in this State, employing ten or more men to be worked underground, shall make or cause to be made, at the discretion of the inspector of mines hereinafter provided for, an accurate map or plan of the workings of such mine, and every vein or deposit thereof, showing the general inclination of the strata, together with any material deflections in said workings, and the boundary lines of said mines, and deposit a true copy of said map or plan with the clerk of the county court of each county wherein may be located said mine, and during the month of January of each and every year after this act shall have taken effect, the said owner, agent or operator, shall furnish the inspector and clerk of the county court aforesaid with a sworn statement, and a further map or plan of the progress of the workings of such mine, continued from last report to the end of the month of December next preceding, and the inspector shall correct his map or plan of said workings in accordance with the statement and map or plan thus furnished, and when any mine is worked out or abandoned, that fact shall be reported to the inspector, and the map or plan of such mine in the office of the clerk of the county court shall be carefully corrected and verified.

Sec. 2. Section 5346 of Kirby's Digest [shall] be amended so as to read as follows:

Section 5346. It shall be the duty of the governor soon after the passage of this act, to appoint a practical miner of not less than seven years' experience, inspector of mines for the State, who shall take the usual oath of office; said miner shall be a citizen and qualified elector of the State, and not interested as owner of any mine, and said inspector shall hold his office for two years, and until his successor is appointed and qualified, and be allowed a salary of two thousand dollars per annum.

Sec. 3. Section 5347 [shall] be amended so as to read as follows:

Section 5347. It shall be the duty of said inspector to visit and inspect personally all coal mines in this State, where there are ten or more persons employed to work underground at said mine, at least once every ninety days, and at all other times when required by his duties, and shall see that precaution is taken to insure health and safety of the workmen employed in any of the mines, and that the provisions and requirements of this act be observed and the law enforced, and shall make a report to the governor on the 1st day of November of each year, showing number of coal mines operated in this State, number of visits made to said mines by said inspector, the manner of mining, whether by shaft, slope, or drift, number of men employed at said mine, and all other information which he may think of public importance to the State. Said inspector shall not obstruct or hinder the necessary working of any mine, when examining and inspecting the same, unless necessary to make thorough inspection.

Sec. 4. Section 5350 [shall] be amended so as to read as follows:

Section 5350. For any injury to persons or property occasioned by the willful violation of this act, or willful failure to comply with any of its provisions, a right of action shall accrue to any party injured for any direct damages sustained thereby: *Provided*, That should death ensue from any such injury, a cause of action shall survive in favor first of the widow and minor children of such deceased, if there be no widow nor minor children, then to the father if living, then to the mother, if no mother, then to the brothers and sisters and their descendants.

Sec. 5. Section 5354 [shall] be amended so as to read as follows:

Section 5354. Any inspector who shall willfully fail or refuse to perform any of the duties required of him by the provisions of this act, shall be punished by a fine of not less than one hundred dollars, and upon a third conviction for any such failure or refusal, he shall be removed from office, and any other person convicted of a violation of any provision of this act, or failing in any manner to comply therewith, except such provision for which punishment has already hereinbefore been fixed, shall be punished by a fine of not less than twenty-five dollars; and each day any such violation or failure shall continue, shall be deemed a separate offense: *Provided*, The provisions of this act only apply to coal miners: *Provided, further*, The provisions of this act do not apply to mines when less than ten men are employed underground in twenty-four hours.

Sec. 6. Section 5356 [shall] be amended so as to read as follows:

Section 5356. It shall be the duty of every corporation, or company, or person engaged in the business of mining and selling coal by weight or measure, and employing ten or more persons, to procure and constantly keep on hand at the proper place the necessary scales and measures and whatever else may be necessary to correctly weigh and measure the coal mined by such corporation, company, or person, and it shall be the duty of the mine inspector to visit each coal mine operated therein, and where such scales and measures are kept, at least once in each year, and test the correctness of such scales and measures. The owner or operator of each coal mine, or any two or more of the miners working therein, may, in writing, require his attendance at the place where such scales and measures are kept, at other

times in order to test the correctness thereof, and it shall be his duty to comply with such request as soon as he can after receiving such request.

SEC. 7. The owner, agent, lessee, or operator of any coal mine in this State, if said mine is worked on the room and pillar plan, shall cause such work to be prosecuted in such mine in the following manner, to wit: Two entries parallel with each other must be driven for the ingress and egress of the air, and crosscuts must be made at intervals not to exceed forty feet apart. Where gas exists they shall be driven thirty feet apart, or a crosscut be made at any other place ordered by the management to do so. No room shall be turned inside the last course cut.

SEC. 8. The State mine inspector shall, after the passage of this act, give notice in writing to the owner, agent, lessee, or operator in charge of each coal mine worked on the room and pillar plan, to conform to the requirements hereinbefore set out, and if same are not complied with in such mines as work ten or more men underground, then such owner, agent, lessee, or operator so failing, shall be deemed guilty of a misdemeanor, and on conviction be fined not less than ten nor more than fifty dollars for each day in which such mine is operated in violation of the above requirements.

SEC. 9. Every agent, owner, lessee, or operator engaged in mining coal in any quantity, where ten or more men are worked underground, shall furnish and keep on hand for the use of the State mine inspector, for inspecting, testing, and examining scales, 500 pounds of United States standard testing weights.

SEC. 10. In all mines where a fire boss is employed, all working places and worked-out places adjacent to working places shall be examined, when it can be done, at least once a day by a competent fire boss, whose duty it shall be to enter a report of existing conditions of such working places and worked-out places in a well-bound book, to be kept by him for that purpose, and all dangerous places that are marked out shall be marked on a blackboard, furnished by the company, before any other employee enters the mine.

SEC. 11. Nothing but pure lard oil, where oil is used for lighting purposes, shall be used in any underground works, except in the main upcast. This section shall not apply to rope riders.

SEC. 12. There shall be kept in the engine room, or at some near by and convenient place, at each mine working ten or more men underground, a supply of oils, bandages, blankets or covers for wraps, and a cot or stretcher, for the use of and to be used by persons who may receive injuries in or at said mines, and the agent, owner, lessee, or operator shall also provide, and maintain at some convenient place, a conveyance in which to take from the mines to their place of abode, persons who may be thus injured.

SEC. 13. Each and every owner, agent, lessee, or operator operating a coal mine in this State, shall annually, on the 1st day of July of each year, make a report, under oath, upon blank forms to be furnished by the State mine inspector, of the true amount of coal mined each and every month for twelve months next preceding the making of said report. The said blank forms shall be prepared by the State mine inspector, and contain the necessary headings and columns to obtain a correct and true statement of all coal of every kind mined; and this section shall apply to all mines without regard to the number of men employed.

SEC. 14. Any owner, agent, lessee, or operator who shall fail or refuse to file, swear to, and return by the 1st day of July of each year the said reports, shall be deemed guilty of a misdemeanor, and on conviction shall be fined not less than twenty-five dollars nor more than one hundred dollars for each day of such failure; and any agent, owner, lessee, or operator who knowingly swears to a false report, shall be deemed guilty of perjury, and punished accordingly.

SEC. 15. There shall be furnished to the State mine inspector, by the State, in the way and manner that other State officials are furnished, office stationery, the necessary stationery and printed blanks and forms that may be required to enable him to properly discharge his duties, and to obtain and make reports, and to do and perform all the duties required of him under this act and existing mining laws.

SEC. 16. It shall be, and is hereby made the duty of the prosecuting attorney of the district wherein the State mine inspector may file any complaint for violation of the mining laws of this State, upon notice from the State mine inspector of his having filed such complaint, to at once take charge of and prosecute same on behalf of the State, and upon being informed by the State mine inspector of the violation of any mining law, in his district, it shall be the duty of such prosecuting attorney to swear out or file information against the offender and prosecute the same before any court of competent jurisdiction.

SEC. 17. All slopes, drifts, or shafts, used for hoisting or hauling coal, [shall] be made to be the intake of air into the mines, and all air that goes into a mine [shall] be so split that there will not be more than fifty employees working on each split of air, and there shall not be less than 200 cubic feet of air pass each working face per minute, and the State mine inspector [shall] be required to measure the air at all working faces in making his inspection.

SEC. 18. Whenever and wherever a coal mine in this State becomes dangerous from high water or overflow of streams adjacent thereto, whereby the lives of miners employed therein

are jeopardized by reason of such high water, it shall be the duty of the managers of such coal mine to call the miners out of the same, and forbid their working therein until such danger is past, and failure to do so is hereby made a high misdemeanor, and upon conviction thereof, shall be fined in any sum not less than five hundred dollars nor more than five thousand dollars, or by imprisonment not less than six months nor more than one year.

Approved May 1, 1905.

ACT No. 233.—*Railroads—Shelters for workmen at division points.*

SECTION 1. It shall be unlawful for any railroad company or corporation, or other persons who own, control or operate any lines of railroad in the State of Arkansas, to build, construct or repair railroad equipment, without first erecting and maintaining at every division point a building or shed over the repair tracks, same to be provided with a floor where such construction or repair [work] is permanently done, so as to provide that all men permanently employed in the construction and repair [of] cars, trucks, and other railroad equipment, shall be under shelter during snows, sleet, rain and other inclement weather.

SEC. 2. Every corporation, person or persons, manager, superintendent or foreman of any company, corporation, person or persons, who shall fail or refuse to comply with the provisions of this act after the 1st day of November, 1905, shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be punished by a fine of not less than twenty-five dollars (\$25) nor more than one hundred dollars (\$100); and each and every day that said railroad company, corporation, person or persons, manager, foreman or agent of any such railroad company, corporation, person or persons, shall refuse or fail to comply with the provisions of this act, shall constitute a separate and distinct violation thereof.

Approved May 1, 1905.

ACT No. 270.—*Public printing to be done within the State.*

SECTION 1. Section 6421 of Kirby's Digest of the Statutes of Arkansas [shall] be amended so as to read as follows:

Section 6421. Said commissioners shall advertise and let each of the foregoing classes of public printing to the lowest responsible bidder or bidders therefor: *Provided*, Such printing shall be done in the State of Arkansas: *Provided, further*, That if said commissioners shall, in their judgment, believe there has been an agreement or combination among the bidders or printers of the State on any contract, they shall throw out all bids on such contract or contracts and advertise anew for bids, and the competition on such contract or contracts shall be free and open, without regard to location.

Approved May 6, 1905.

ACT No. 298.—*Enticing employees.*

SECTION 1. Section 5030 of Kirby's Digest is hereby amended so as to read as follows: Section 5030. If any person shall interfere with, entice away, knowingly employ, or induce a laborer or renter who has contracted with another person for a specified time to leave his employer or the leased premises, before the expiration of his contract without the consent of the employer or landlord, he shall, upon conviction before any justice of the peace or circuit court, be fined not less than twenty-five nor more than one hundred dollars, and in addition shall be liable to such employer or landlord for all advances made by him to said renter or laborer by virtue of his contract, whether verbal or written, with said renter or laborer, and for all damages which he may have sustained by reason thereof.

Approved May 6, 1905.

ACT No. 309.—*Trade marks of trade unions.*

SECTION 1. This act shall be known as the "Trades Union Labor Act."

SEC. 2. The word "label," as used in this act, shall include any label, trade-mark, term, design, device, or form of advertisement adopted or to be adopted for the purpose hereinafter specified. Any label, counterfeit or imitation of any label shall be deemed and held to be attached to goods, wares, merchandise, or other product of labor, if it be in any way attached, affixed, printed, painted, stamped or impressed to or upon such goods, wares, merchandise or other product of labor, or to, or upon, the box, can, case or package, containing such goods, wares, merchandise or other product of labor.

SEC. 3. Whenever any association or union of workmen has heretofore adopted or used, or shall hereafter adopt or use a label for the purpose of designating, making known or distinguishing any goods, wares, merchandise or other product of labor, as having been made, manufactured, produced, prepared, packed or put on sale by a member or members of such association or union, it shall be unlawful to counterfeit or imitate such label or to use, sell, offer for sale or in any way utter or circulate any counterfeit or imitation of any such label.

SEC. 4. Whoever counterfeits or imitates any such label, or sells, or offers for sale or in any way utters or circulates any counterfeit or imitation of any such label, shall be punished by a fine of not less than five hundred dollars, or by imprisonment for not more than twelve months, or both fine and imprisonment.

SEC. 5. Every such association or union that has heretofore adopted or used, [or] shall hereafter [hereafter] adopt or use a label, as provided in section 3 of this act, may file the same for record in the office of the secretary of state by leaving two counterparts or facsimiles thereof with said secretary, and by filing therewith a sworn application specifying the name or names of the association or union on whose behalf such label shall be filed; the class of merchandise and a description of the goods to which it has been or is intended to be appropriated, stating that the party on whose behalf such label shall be filed has the right to use the same; that no other person, firm, or corporation, union or association has the right to use such either in the identical form or in any such near resemblance thereto as may be calculated to deceive, and that the facsimiles or counterparts filed therewith are true and correct. There shall be paid for such filing and recording a fee of one dollar. Said secretary shall deliver to such association or union so causing to be filed any such label so many duly attested certificates of the recording of the same as such association or union may apply for, for each of which certificates said secretary shall receive a fee of one dollar. Any such certificate of record shall in all suits and prosecutions under this act [shall] be sufficient proof of the adoption of such label and compliance with this act. Said secretary of state shall not record for any person, union or association any label that would probably be mistaken for any label theretofore filed or on behalf of any other union of [or] association. Any person who shall for himself or on behalf of any other person, association or union, procure the filing of any label in the office of the secretary of state, under the provisions of this act, by making any false or fraudulent representations or declarations verbally or in writing or by any fraudulent means, shall be liable to pay damages sustained in consequence of any such filing, to be recovered by or on behalf of the party injured thereby, in any court having jurisdiction and shall be punished by a fine not exceeding five hundred dollars, or by imprisonment not exceeding twelve months, or by both fine and imprisonment.

SEC. 7. Every such association or union adopting or using a label as aforesaid, may proceed by suit to enjoin the unauthorized use, display, and sale of any counterfeit or imitation thereof, and all courts of competent jurisdiction shall grant injunctions to restrain such manufacture, use, display or sale, and may award the complainant in any such suit [for] damages resulting from such manufacture, use, sale or display as may be by said court deemed just and reasonable and shall require the defendants to pay to such association or union all profits derived from such wrongful manufacture, use, display or sale; and such court shall also order that all such labels, counterfeits or imitations in the possession or under the control of any defendant in such cause be delivered to an officer of the court or to the complainant, to be destroyed.

SEC. 8. Every person who shall use or display the genuine label of any such association or union in any manner not being authorized so to do, such union or association shall be deemed guilty of a misdemeanor and shall be punished by imprisonment for not more than twelve months or by a fine of not more than five hundred dollars (\$500) or both fine and imprisonment.

SEC. 9. Any person or persons who shall in any way use the name or seal of any such association or union or officer thereof in and about the sale of goods or otherwise, not being authorized to so use the same, shall be guilty of a misdemeanor, and shall be punished by imprisonment for not more than twelve months, or by a fine of not more than five hundred dollars, or by both fine and imprisonment.

SEC. 10. When complaint in writing, verified by affidavit, is made to any court officer having authority to issue search warrants, showing that complainant has reason to believe and stating that he does believe that counterfeits or imitations of any label recorded under the provisions of this act, or tools, cuts, plates, machinery or materials prepared or provided for the making of such counterfeits or imitations, are concealed in any house or place, particularly describing the same, such court or officer shall, if satisfied that there is reasonable cause for such belief, issue a warrant to search such house or place for the article described in the complaint. Search warrants issued under this act shall be directed to and served and returned to the same officer and in the same manner as search warrants in other cases. The proceedings and practice after such return shall conform as near as may be to the practice and proceedings in regard to search warrants in other cases, and property seized by virtue of such warrants shall be burned or otherwise destroyed under the direction of the court or officer issuing such warrant.

Approved May 6, 1905.

PENNSYLVANIA.

ACTS OF 1905.

Act No. 75.—*Examination and licensing of steam engineers.*

SECTION 1. It shall be unlawful for any person or persons to have charge of or to operate a steam boiler or steam engine over ten horsepower, in cities of the second and third class of this Commonwealth, except locomotive boilers, used in transportation, and steam engines and steam boilers, carrying less than fifteen pounds pressure per square inch, unless said person or persons are upwards of twenty-one years of age, and holds a license, as hereinafter provided for; and it shall be unlawful for any owner or owners, user or users, of any steam boiler or steam engine over ten horsepower, other than those excepted above, to operate or cause to be operated a steam boiler or steam engine without a duly licensed engineer.

SEC. 2. All persons desiring authority to perform the duties of an engineer shall apply to the boiler inspector of such cities, who shall examine the applicant as to his knowledge of steam machinery and his experience in operating the same, also the proofs he produces in support of his claim, and if, upon full consideration, the inspector is satisfied that the applicant's character, habits of life, knowledge and experience in the duties of an engineer, are all such as to authorize the belief that he is a suitable and safe person to be intrusted with the powers and duties of such a station, he shall grant him a license, upon the payment of three (3) dollars, authorizing him to be employed in such duties for the term of one year, and such license shall be annually renewed, without examination, upon the payment of one (1) dollar, provided it is presented for renewal within ten days after its expiration. Licenses so granted shall be graded into two classes: one of which shall entitle the licensee to have charge of or to operate stationary steam boilers and steam engines only; the other of which shall entitle the licensee to have charge of or to operate portable steam boilers and steam engines only; such licenses shall not be transferred from one grade to the other without a reexamination, said reexamination to be conducted without cost to the licensee.

No person shall be eligible to examination for a license unless he furnishes proof that he has been employed about a steam boiler or steam engine for a period of not less than two years, prior to the date of application, which must be certified to by at least one employer and two licensed engineers.

SEC. 3. The inspector shall investigate all acts of incompetency or misconduct committed by any licensed engineer while acting under the authority of his license, and shall have power to summon before him any witnesses within his respective city, and compel their attendance by a similar process as used in the State courts to compel the attendance of witnesses; and he may administer all necessary oaths to any witnesses thus summoned before him, and, after reasonable notice in writing, given to the alleged delinquent, of the time and place of such investigation, such witnesses shall be examined, under oath, touching the performance of his duties by any such licensed engineer, and if the inspector shall be satisfied that such licensed engineer is incompetent, or has been guilty of misdemeanor, negligence, unskillfulness, or has endangered life, or willfully violated any provision of this law, he shall immediately suspend or revoke his license, as the facts of the case may require.

SEC. 4. Every engineer who receives a license shall, before entering upon his duties, make oath before the inspector, to be recorded with the application, that he will faithfully and honestly, according to his best skill and judgment, without concealment or reservation, perform all the duties required of him by law.

SEC. 5. Every engineer who shall receive a license shall, when employed about any steam plant, place his certificate of license, which shall be framed under glass, in some conspicuous place about the engine or boiler, where it can be seen at all times; and any neglect to comply with this provision by any engineer shall be deemed a misdemeanor, and, upon conviction thereof, he shall be subject to a fine of not exceeding one hundred dollars, or the revocation of his license, or both, in the discretion of the court.

SEC. 6. All engineers licensed under the provisions of this law shall assist the inspector in his examination of any boiler under his charge, and shall point out all defects and imperfections known to them in the boilers or machinery, and, in default thereof, the license of any such engineer or engineers, so neglecting or refraining, shall be revoked by the inspector.

SEC. 7. Every person who has been employed as a steam engineer, in the city in which he applies for a license, for a period of four years next prior to the passage of this act, and who files with his application a certificate of said fact, under oath, accompanied by a statement from his employer or employers verifying the same, shall be entitled to a license without further examination.

SEC. 8. It shall be the duty of an engineer, when he assumes charge of boilers and machinery, to forthwith thoroughly examine the same, and if he finds any part thereof in bad

condition, caused by neglect or inattention on the part of his predecessor, he shall immediately report the facts to the inspector, who shall thereupon investigate the matter, and if the former engineer has been culpably derelict of duty he shall suspend or revoke his license.

SEC. 9. It shall be the duty of every licensed engineer, when he vacates a position as engineer, to notify the boiler inspector of such fact, and any failure to comply with this provision shall be punishable by a suspension of the license for such period or periods as the boiler inspector may determine.

SEC. 10. Every owner or lessee, or agent of the owner or lessee, of any steam boiler or steam engine over ten horsepower, embraced within the provisions of this act, or any appliances connected therewith and every person acting for such owner, lessee or agent, is hereby forbidden to delegate or transfer, in any manner whatever, the responsibility or liability for the management or operation, or the maintenance in good condition and repair, of any such steam boiler or steam engine, or appliances connected therewith, to any person or persons other than a licensed engineer in charge thereof, as shown by compliance with section two of this act; and any violation of the provisions of this section shall be deemed to be a misdemeanor, to be punished by a fine not exceeding five hundred dollars (\$500), or by imprisonment not exceeding three months, or both, at the discretion of the court: *Provided, however,* That on the purchase, or agreement to purchase, a new steam boiler or steam engine over ten horsepower, or appliances connected therewith, the builder or builders thereof may contract or agree with the purchaser or purchasers to accept said responsibility for a period not to exceed sixty days: *Provided,* That there is to be a licensed engineer in attendance thereon.

SEC. 11. All fees received under this act shall be paid into the treasury of the city wherein the license is granted.

SEC. 12. Any violation of the provisions of section one of this act shall be deemed a misdemeanor, to be punished by a fine not exceeding five hundred dollars, or by imprisonment not exceeding three months, or both, at the discretion of the court.

SEC. 13. Any officer charged with a duty under the provisions of this act, who shall fail to discharge the same or comply with the requirements thereof, shall, upon conviction, be punishable by a fine not exceeding five hundred dollars, or by imprisonment not exceeding three months, or both, at the discretion of the court.

SEC. 14. This act shall not affect any third-class city until the councils of said city shall, by ordinance, provide for the creation of the office of boiler inspector therein.

Approved—the 4th day of April, A. D. 1905.

ACT No. 222.—*Employment of children in anthracite mines.*

(See Bulletin No. 62, pp. 263-266.)

ACT No. 226.—*Inspection of factories—Employment of women and children.*

(For sections 1 to 6 and 25, relating to the employment of children, see Bulletin No. 62, pp. 266-268.)

SECTION 7. Every person, firm or corporation employing girls or adult women, in any establishment, shall provide suitable seats for their use, and shall permit such use when the employees are not necessarily engaged in active duties.

SEC. 8. Every person, firm or corporation employing males and females in the same establishment, shall provide for such employees suitable and proper wash and dressing rooms, and water-closets for males and females; and the water-closets, wash and dressing rooms used by females shall not adjoin those used by males, but shall be built entirely away from them, and shall be properly screened and ventilated; and all water-closets shall at all times be kept in a clean and sanitary condition.

SEC. 9. Not less than one hour shall be allowed for the noonday meal in any establishment. But the chief factory inspector may, for good cause, reduce the time for the noonday meal in establishments where all the other provisions of this act are observed, which entail duties upon the part of employers.

SEC. 10. Every person, firm or corporation employing men, women or children, in any establishment, shall post and keep posted in a conspicuous place, in every room where such help is employed, a printed copy of the factory laws, a printed notice stating the number of hours per day for each day of the week required of such persons; and in every room where children under sixteen years of age are employed, a list of their names, with their ages.

SEC. 11. The owner or person in charge of an establishment where machinery is used shall provide belt shifters or other mechanical contrivances for the purpose of throwing on or off belts or pulleys. Whenever practicable, all machinery shall be provided with loose pulleys. All vats, pans, saws, planers, cogs, gearing, belting, shafting, set screws, grindstones, emery wheels, fly wheels, and machinery of every description shall be properly guarded. The floor

space of no working room in any establishment shall be so crowded with machinery as thereby to cause risk to the life or limb of an employee; nor shall there be in any establishment machinery in excess of the sustaining power of the floors and walls thereof. No person shall remove or make ineffective any safeguard around or attached to machinery, vats or pans while the same are in use, except for the purpose of immediately making repairs thereto, and all such safeguards so removed shall be properly replaced. Exhaust fans of sufficient power, or other sufficient devices, shall be provided for the purpose of carrying off poisonous fumes and gases, and dust from emery wheels, grindstones and other machinery creating dust. If a machine or any part thereof is in a dangerous condition, or is not properly guarded, the use thereof may be prohibited by the chief factory inspector or by his deputy, and a notice to that effect shall be attached thereto. Such notice shall not be removed until the machinery is made safe and the required safeguards are provided, and in the meantime such unsafe or dangerous machinery shall not be used.

SEC. 12. The owner, agent, lessee, superintendent, or other person having charge or managerial control of any establishment, hotel, hospital, apartment house or other building, where elevators, hoisting shafts, lifts or wellholes are used, shall cause the same to be properly and substantially inclosed, secured or guarded; and shall provide such proper traps or automatic doors, so fastened in or at all elevator ways, except elevators inclosed on all sides, as to form a substantial surface when closed, and so constructed as to open and close by action of the elevator in its passage, either ascending or descending. The cable, gearing or other apparatus of elevators, hoisters, or lifts, shall be kept in a safe condition: *Provided*, That the provisions of this section shall not apply to cities of the first and second classes.

SEC. 13. The owner, agent, lessee, or other person having charge or managerial control of any establishment, shall provide or cause to be provided not less than two hundred and fifty cubic feet of air space for each and every person in every workroom in said establishment, where persons are employed, and shall provide that all workrooms, halls and stairways in said establishment be kept in a clean and sanitary condition and properly lighted.

SEC. 14. No person, firm or corporation engaged in the manufacture or sale of clothing or other wearing apparel, cigars or cigarettes, shall bargain or contract with any person, firm or corporation for the manufacture, or partial manufacture, of any of said articles or goods where the same are to be made in any kitchen, living room or bedroom in any tenement house or dwelling house, except where the persons bargaining or contracting to make or partially make any of the aforesaid articles or goods are resident members of the family, residing in such tenement house or dwelling house where the said articles or goods are to be made or partially made, and who have furnished the person, firm or corporation engaged in the manufacture or sale of said articles or goods, and with whom the bargain or contract is to be made, a certificate from the board of health, of the city or town in which such tenement house or dwelling house is situated, that the same is free from any infectious or contagious disease; which certificate may be revoked by the board of health whenever the exigencies of the case shall require: *Provided*, That the term "family" in this section shall include only the parents and their children, or the children of either.

SEC. 15. No person, firm or corporation engaged in the manufacture or sale of any of the articles or goods enumerated in section fourteen of this act, shall bargain or contract with any person, firm or corporation for the manufacture, or partial manufacture, of any of the said articles or goods in any workshop, not part of a tenement or dwelling house, unless the said workshop shall have been inspected by the chief factory inspector or by one of his deputies, and who shall have issued a printed permit to the person in charge of such workshop, stating that the same is in a clean and safe and sanitary condition, and fixing the maximum limit to the number of persons who may be employed therein; the permit to be posted and kept posted in a conspicuous place in such workshop: *Provided*, That this section shall not apply to any workshop wherein the aforesaid articles or goods are manufactured for the general trade, and are to be sold and delivered in or upon the premises, and are not manufactured, or partially manufactured, under a bargain or contract with any person, firm or corporation employed in the manufacture and sale of the article aforesaid.

SEC. 16. Whenever the sanitary conditions of any workshop, as defined in section fifteen, is dangerous to the health and safety of the employees therein or to the public, the chief factory inspector or his deputy shall cancel the permit aforesaid, and shall order that the workshop be vacated until the provisions of this act shall have been complied with and the workshop restored to proper sanitary condition.

SEC. 17. All persons, firms and corporations engaged in the manufacture or baking of bread, cakes, crackers, pastry, pretzels or macaroni, for public sale, shall keep their room or rooms for baking, mixing, storing, or sale of flour or other grain products separate and apart from any sleeping room, water-closet, urinal, defective drain or sewer pipe, and shall not permit the harboring of any domestic animal therein. The floors of all baking, mixing, storing and sales rooms shall be kept clean and tightly joined and free from crevices, and the walls and ceilings shall be painted, kalsomined or whitewashed as often as twice in each year and oftener if, in the opinion of the chief factory inspector or his deputy, the safety of the employees or the public shall require.

SEC. 18. When the foregoing provisions of section seventeen are complied with, the chief factory inspector or his deputy shall issue to the owner or person in charge of such bake shop a permit, stating that the same is in a clean and sanitary condition; which permit shall be posted and kept posted in the office or sales room of the bake shop, aforesaid; but when any of the foregoing provisions of section seventeen are not being complied with in any bake shop, the chief factory inspector or his deputy shall issue to the person in charge, or his representative, a written order to comply with the law aforesaid, within ten days; or he may order the closing of any such bake shop until the order shall have been complied with, should the safety of the employees, or the public, in his opinion, so require.

SEC. 19. All boilers used for generating steam or heat in any establishment shall be kept in good order, and the owner, agent or lessee of such establishment shall have said boilers inspected, by a casualty company in which said boilers are insured, or by any other competent person approved by the chief factory inspector, once in twelve months, and shall file a certificate showing the result thereof, in the office of such establishment, and shall send a duplicate thereof to the department of factory inspection. Each boiler or nest of boilers used for generating steam or heat in any establishment shall be provided with a proper safety valve and with steam and water gauges, to show, respectively, the pressure of steam and the height of water in the boilers. Every boiler house, in which a boiler or nest of boilers is placed, shall be provided with a steam gauge properly connected with the boilers, and another steam gauge shall be attached to the steam pipe in the engine house, and so placed that the engineer or fireman can readily ascertain the pressure carried. Nothing in this section shall apply to boilers which are regularly inspected by competent inspectors, acting under local laws and ordinances.

SEC. 20. It shall be the duty of the owner or superintendent of any establishment to report, in writing, to the chief factory inspector every serious accident or serious injury done to any person in his or her employ, where such accident or serious injury occurred in or about the premises where employed, within twenty-four hours after the accident or injury occurs, stating as fully as possible the cause of such accident or injury; and in all fatal and serious accidents the chief factory inspector or his deputy may subpoena witnesses, administer oaths, and do whatever may be necessary in order to make a thorough and complete investigation of the same: *Provided, however*, That the provisions of this section shall not be construed as interfering with the duties of coroners, under existing laws.

SEC. 21. It shall be the duty of the owner, superintendent, assistant or person in charge of any establishment to furnish, from time to time, to the chief factory inspector or his deputy any information required by the provisions of this act, and the chief factory inspector and his deputies shall have authority to inspect any such establishment, at any time, for the purpose of enforcing the provisions of this act.

SEC. 22. Wherever the law makes it the duty of the owner, lessee, or other person in charge of any building, or room or rooms in any building, to erect and maintain fire escapes, or appliances for the extinguishment of fire, or for proper and sufficient exits in case of fire or panic, the chief factory inspector or his deputy shall inspect all said buildings, or the room or rooms in said buildings, and notify the owners, lessees, or other persons in charge of same, to comply with said law. And all fire escapes, exits and fire-extinguishing appliances shall be provided and located by order of the chief factory inspector or his deputy, and shall be subject to the approval of the chief factory inspector or his deputy: *Provided*, That the provisions of this section shall not apply to cities of the first and second classes.

SEC. 23. Any person who violates any of the provisions of the foregoing sections of this act, or who suffers any female, minor or a child to be employed in or about his or her establishment, in violation of any of the provisions of the foregoing sections of this act, or who, being authorized to administer oaths, shall violate any of the provisions of sections five and six of this act, shall be deemed guilty of a misdemeanor, and, on conviction, shall be punished by a fine of not less than twenty-five dollars and not more than five hundred dollars, or an imprisonment in the county jail for a term not less than ten days nor more than sixty days, for each and every such violation. In all cases the prosecution shall be instituted, in the name of the Commonwealth, by the deputy factory inspector of the district where the offense is alleged to have been committed, and the hearing shall be conducted by the alderman, justice of the peace or other committing magistrate before whom the information is lodged. After full hearing of the parties in interest, the alderman, justice of the peace or other committing magistrate shall, if the evidence warrants it, impose the penalty herein provided, which shall be final to the party against whom the penalty is imposed, unless the party upon whom the penalty is imposed shall furnish good and sufficient bail for his or her appearance at the next term of the court of quarter sessions of the county wherein the offense is alleged to have been committed.

SEC. 24. All fines imposed and collected for any violation of this act shall be forwarded to the chief of the department of factory inspection, who shall pay the same into the office of the State treasurer, for the use of the Commonwealth.

SEC. 26. After the first day of January in each year, the chief factory inspector shall compile or cause to be compiled a succinct statistical and narrative report, to be addressed to the governor of the Commonwealth, of the work of his department for the year ending December thirty-first.

SEC. 27. To more effectually secure the observance of the provisions of this act and the fire-escape laws, the governor shall appoint, by and with the advice and consent of the senate, a chief factory inspector, for a term of four years, at a salary of five thousand dollars per annum; and who shall appoint a chief clerk, at a salary of two thousand dollars per annum; a statistician, at a salary of eighteen hundred dollars per annum; an assistant clerk, at a salary of fourteen hundred dollars per annum; a messenger, who shall be a typewriter, at a salary of twelve hundred dollars per annum, and thirty-nine deputy factory inspectors, five of whom shall be women, at a salary of twelve hundred dollars each, per annum, and their necessary traveling expenses; the chief factory inspector and his appointees, aforesaid, to constitute the department of factory inspection.

Approved—the 2d day of May, A. D., 1905.

SOUTH CAROLINA.

ACTS OF 1905.

ACT No. 419.—*Accidents on railroads.*

SECTION 1. Section 2137, volume 1, Code of Laws of South Carolina, 1902, is hereby amended * * * so that said section, when amended, shall read as follows:

Section 2137. Every railroad corporation shall cause immediate notice of any accident which may occur on its road, attended with injury to any person, in such cases of accident attended with any injury to any person, as the railroad commissioners may by rules and regulations adopted by them, require the giving of such notices, to be given to a physician most accessible to the place of accident and to the railroad commissioners, by telegraph, telephone or such other means as may be the quickest under the circumstances, at the same time that notice is given the officials of the road on which the accident occurred, and shall furnish immediate transportation for the commissioners over its line to the place of accident, free of expense to the commissioners, and if the commissioners use another railroad to reach the place of accident, the corporation on whose line the accident occurs shall pay the expense of transportation thereon, and shall also give notice in like manner of any accident falling within any description of accidents of which said commissioners may by general regulation require notice to be given. For each omission to give such notice the corporation shall forfeit a sum not exceeding five hundred dollars.

Approved the 22d day of February, A. D. 1905.

ACT No. 467.—*Bribery, etc., of employees.*

SECTION 1. Whoever corruptly gives, offers or promises to an agent, employee or servant, any gift or gratuity whatever, with intent to influence his action in relation to his principal's, employer's or master's business; or an agent, employee or servant who corruptly requests or accepts a gift or gratuity or a promise to make a gift or to do an act beneficial to himself, under an agreement or with an understanding that he shall act in any particular manner in relation to his principal's, employer's or master's business; or an agent, employee or servant, who, being authorized to procure materials, supplies or other articles either by purchase or contract for his principal, employer or master, receives directly or indirectly, for himself or for another, a commission, discount or bonus from the person who makes such sale or contract, or furnishes such materials, supplies or other articles, or from a person who renders such service or labor; and any person who gives or offers such an agent, employee or servant such commission, discount or bonus, shall be punished by a fine of not more than five hundred dollars, or by such fine and by imprisonment for not more than one year.

Approved the 4th day of March, A. D. 1905.

ACT No. 471.—*Right of action for injuries—Survival.*

SECTION 1. Section 2859, vol. 1, of the Code of Laws, 1902, [shall] be amended * * * so that said section when so amended shall read as follows:

Section 2859. Causes of action for and in respect to any and all injuries and trespasses to and upon real estate and any and all injuries to the person or to personal property, shall survive both to and against the personal or real representative (as the case may be) of deceased persons, and the legal representatives of insolvent persons, and defunct or insolvent corporations, any law or rule to the contrary, notwithstanding.

Approved the 7th day of March, A. D. 1905.

TENNESSEE.

ACTS OF 1905.

CHAPTER 21.—*Trade-marks of trade unions.*

SECTION 1. Within the meaning of this act a trade-mark shall be construed to be any seal, label, term, design, device, or form of advertisement used for the purpose of designating, making known, or distinguishing any goods, wares, merchandise, or other product of labor, as having been made, manufactured, produced, prepared, packed, or put on sale by any person, firm, corporation, association, or union of workmen, or by any member or members of such association or union.

SEC. 2. Whenever any person, firm, or corporation or any association or union of workmen has heretofore adopted or used or shall hereafter adopt or use any trade-mark, it shall be unlawful to counterfeit or imitate the same; or to use, sell, or to offer for sale, or in any way utter or circulate any counterfeit or imitation of any such trade-mark provided such trade-mark has been filed and recorded in the office of the secretary of state, as provided in section 4 of this act.

SEC. 3. Whoever knowingly counterfeits any such trade-marks, or knowing such trade-mark to be counterfeit, sells, offers for sale, or in any way utters or circulate any counterfeit or imitation of such trade-mark, or knowing such trade-mark to be counterfeit, keeps, or has in his possession, with the intent that the same shall be sold or disposed of, any goods, wares, merchandise, or other product of labor to which or on which any such counterfeit or imitation is printed, painted, stamped, or impressed; or knowing said trade-mark so printed, painted, stamped, or impressed thereon, sells or disposes of such goods, wares, merchandise, or other product of labor contained in any box, case, can, or package, to which or on which any such counterfeit or imitation is attached, fixed, printed, painted, stamped or impressed, or knowing such trade-mark to be counterfeit, keeps or has in his possession with the intent that the same shall be sold or disposed of, any goods, wares, merchandise, or other product of labor, in any box, case, can, or package to which or on which any such counterfeit or imitation is attached, affixed, printed, painted, [painted], stamped, or impressed, shall be punished by a fine of not more than one hundred (\$100) dollars, or by imprisonment for not more than three months: *Provided*, That any person, firm, or corporation buying, selling, or disposing of any goods, wares, merchandise bearing said counterfeit trade-mark, not knowing the same to be counterfeit, shall not be deemed guilty under the provision [provision] of this act.

SEC. 4. Every person, firm, corporation, or association, or union of workmen that has heretofore adopted or used, or shall hereafter adopt or use, any trade-mark mentioned and provided in section 1 of this act, may file the same for record in the office of the secretary of state by leaving two copies, counterparts, or facsimiles thereof with said secretary, and by filing therewith a sworn application, specifying the name or names of the person, firm, corporation, association, or union, on whose behalf such trade-mark shall be filed, the class of merchandise and a description of the goods to which it has been, or is intended to be appropriated, stating that the party so filing, or on whose behalf such trade-mark shall have been filed, has the right to use the same, that no other person, firm, corporation, association or union has the right to such use, either in the identical form or in any such near resemblance thereto as may be calculated to deceive, and that the facsimile or counterparts filed therewith are true and correct. There shall be paid for such filing and recording a fee of five dollars. Said secretary shall deliver to such person, firm, corporation, association, or union so filing, or causing to be filed, any such trade-mark, so many duly attested certificates of the recording of the same as such persons, firm, corporation, association, or union may apply for, each of which certificates said secretary shall receive a fee of one dollar. Any such certificates of record shall in all suits and prosecutions under this act be prima facie evidence of the adoption of such trade-mark. Said secretary of state shall not record for any person, firm, or corporation, association, or union any trade-mark heretofore filed by or on behalf of any other person, firm, corporation, association, or union.

SEC. 5. Any person who shall for himself, on behalf of any other person, firm, corporation, association or union, procure the filing of any trade-mark in the office of the secretary of state, under the provisions of this act, by knowingly making any false, or fraudulent representation or declaration verbally or in writing, or by any means known to be fraudulent, shall be liable to pay any damages sustained in consequence of such filing, to be recovered by or on behalf of the party injured thereby, in any court having jurisdiction and shall be punished by a fine not exceeding one hundred dollars or by imprisonment not exceeding three months.

SEC. 6. Every such person, firm, corporation, association, or union, adopting or using a trade-mark, may proceed by suit to enjoin the manufacture, use, display, or sale of any of the counterfeits or imitations thereof, and all courts of competent jurisdiction shall grant injunctions to restrain such manufacture, use, display or sale and may award the complainant in any such suit, the court having jurisdiction, such damage

such fraudulent manufacture, use, display, or sale as may be by the court or jury deemed just and reasonable; and shall require the defendants to pay to such person, firm, corporation, association, or union all profits derived from such wrongful manufacture, use, display, or sale, and such court shall also order that all such counterfeit or imitations in the possession or under the control of any defendant in such case be delivered to an officer of the court or to the complainant, to be destroyed.

SEC. 7. Every person who shall use or display the genuine trade-mark for the purpose of fraud of any such person, firm, corporation, association, or union, in any manner not being authorized so to do by such person, firm, corporation, association, or union, shall be deemed guilty of a misdemeanor, and shall be punished by imprisonment for not less than three months, or by a fine of not more than one hundred dollars. In all cases where such association or union is not incorporated, suits under this act may be commenced and prosecuted by an officer or member of such association or union, in behalf of and for the use of such association or union.

SEC. 8. None of the provisions of this act shall affect or apply to persons, firms, or corporations who shall in good faith buy or come into possession of goods with a counterfeit trade-mark thereon, when such person, firm, or corporation did not know at the time he or they obtained possession of such goods that the same were stamped with a counterfeit trade-mark: *Provided*, Such person, firm, or corporation does not knowingly misrepresent the facts regarding the trade-mark at the time he offers such goods for sale.

Passed January 31, 1905.

CHAPTER 159.—*Inspection of bakeries.*

SECTION 1. Chapter 401, of the Acts of 1899 [relating to the inspection of factories, etc.], is hereby amended to make the word "workshop," whenever the same shall appear therein, include bakeries, whether the same be run by machinery or not.

Passed March 31, 1905.

CHAPTER 171.—*Seats for female employees.*

SECTION 1. All proprietors or owners of any retail, jobbing, or wholesale dry-goods store, or dealers in notions, millinery, or any other business where any female help are employed for the purpose of serving the public in the capacity of clerks or sales ladies, shall provide a chair or stool for each one of such female help or clerks, in order that during such period as they are not actively engaged in making sales or taking stock or performing other duties of their employment, they may have an opportunity to be seated and to rest.

SEC. 2. Any proprietor, owner, or dealer, mentioned in section 1 of this act, who shall undertake by any direction or order to prohibit or prevent any one of such female help or clerks to use the seats provided for in the foregoing section shall be guilty of a misdemeanor, and, upon conviction, shall be fined as provided in the next section of this act.

SEC. 3. Any owner, proprietor, or dealer, mentioned in the foregoing sections, who shall neglect or refuse to obey and observe the provisions of this act shall be guilty of a misdemeanor, and upon conviction thereof, shall be fined in an amount not less than ten dollars and not exceeding one hundred dollars for the first offense, and in the event said owner or proprietor shall continue to disobey said act he shall be subjected to a fine at the rate of one dollar daily for every chair he fails to furnish his said employees, and for every violation of section 2 of this act such owner, proprietor, or dealer shall, upon conviction, be fined not less than ten dollars and not exceeding one hundred dollars for each and every violation.

Passed March 31, 1905.

CHAPTER 376.—*Exemption of wages from execution.*

SECTION 1. Section 1, of chapter 71, of the Acts of the General Assembly of the State of Tennessee, passed January 31, 1871, is hereby amended * * * so that said section shall read as follows:

Section 2. There shall be exempt from execution, attachment, and garnishment ninety (90%) per centum of the salary, income, or wages of every person earning a salary or wages, or drawing an income of forty (\$40) dollars or less per month, and who is eighteen years of age or upward or is the head of a family, and is a resident of the State of Tennessee: *Provided*, That the lien created by the service of garnishment, execution, or attachment shall only affect ten (10%) per centum of such salary, wages, or income earned at the time of service of process. And there shall be exempt from execution, attachment, or garnishment thirty-six (\$36) dollars of the salary, wages, or income of every person earning a salary, wages, or income in excess of forty (\$40) dollars per month who is eighteen years of age or upward or who is the head of a family, and who is a resident of the State of Tennessee: *Provided*, That the debtor shall only pay the costs of one garnishment on each debt on which suit is brought.

Passed April 6, 1905.

TEXAS.

ACTS OF 1905.

CHAPTER 56.—*Safety appliances on railroads—Switch lights and switches.*

SECTION 1. It shall be the duty of every railway corporation operating any line of railway in the State of Texas, within six months after the passage of this act, to place good and sufficient switch lights on all their main line switches connected with the main line, and to keep the same lighted from sunset until sunrise: *Provided*, That this section of this act shall not apply to railways which have all their road locomotives equipped with electric headlights.

SEC. 2. It shall be the duty of every railway corporation operating any line of railway in the State of Texas, within six months after the passage of this act, to place good and safe derailing switches on all of their sidings connecting with the main line of such railway, and upon which sidings cars are left standing: *Provided*, That no derailing switches shall be required where the siding connects with main line on an upgrade in the direction of the main line of one-half of one per cent or over: *Provided further*, That no derailing switches shall be required on inside tracks at terminal points where regular switching crews are employed.

SEC. 3. Any railway corporation which shall willfully violate any of the provisions of this act shall be liable to the State of Texas for a penalty of not less than one hundred dollars nor more than one thousand dollars for each offense, and such penalty shall be recovered and suits therefor be brought by the attorney-general or under his direction in the name of the State of Texas, in Travis County, or in any county through which such railway may run or be operated, and such suits shall be subject to the provisions of article 4577 of the Revised Civil Statutes of the State of Texas: *Provided*, The provisions of section 1 of this act shall not apply on railroad lines or divisions on which no trains are regularly run or operated at night.

Approved April 3, 1905.

CHAPTER 152.—*Payment of wages in scrip.*

SECTION 1. Chapter 112, Acts of Regular Session of the Twenty-seventh Legislature of the State of Texas is hereby amended to read as follows:

Section 1. It shall be unlawful for any person, firm, association of persons, corporation, or agent of either, to issue any ticket, check or writing obligatory to any servant or employee for labor performed, redeemable or payable in goods or merchandise.

SEC. 2. Any person or the agent of any person, firm, association of persons or corporation, who shall violate any provisions in the foregoing section, shall be deemed guilty of a misdemeanor, and on conviction, shall be punished by a fine of not less than five nor more than one hundred dollars, or by imprisonment in the county jail for a period of not less than five nor more than sixty days, or both.

Approved April 18, 1905.

CHAPTER 163.—*Liability of employers for injuries to employees—Assumption of risk.*

SECTION 1. In any suit against a person, corporation or receiver operating a railroad or street railway for damages for the death or personal injury of an employee or servant, caused by the wrong or negligence of such person, corporation or receiver, that the plea of assumed risk of the deceased or injured employee where the ground of the plea is knowledge or means of knowledge of the effect and danger which caused the injury or death shall not be available in the following cases:

First. Where such employee had an opportunity before being injured or killed to inform the employer or a superior intrusted by the employer with the authority to remedy or cause to be remedied the defect, and does notify or cause to be notified the employer or superior thereof within a reasonable time: *Provided*, It shall not be necessary to give such information where the employer or such superior thereof already knows of the defect.

Second. Where a person of ordinary care would have continued in the service with the knowledge of the defect and danger and in such case it shall not be necessary that the servant or employee give notice of the defect as provided in subdivision 1 hereof.

Approved April 24, 1905.

UTAH.

ACTS OF 1905.

CHAPTER 16.—*Interference with employment—Intimidation.*

SECTION 1. Any person or persons in this State who shall threaten to destroy property or to do bodily harm, for the purpose of preventing any person or persons from entering or remaining in the employ of any company, corporation or individual, shall be guilty of a misdemeanor.

Approved this 24th day of February, 1905.

CHAPTER 96.—*Garnishment of wages of public employees.*

SECTION 1. The State of Utah, or any county, city, town, district board of education, or other subdivision of the State, or any officer, board, or institution or either of the same having in possession or under control any credits or other personal property of, or owing any debt to the defendant in any action, whether as salary or wages, as a public official or employee, or otherwise, shall be subject to attachment, garnishment, and execution under such rights, remedies and procedure as are or may be made applicable by statute to attachment, garnishment, and execution, respectively, in other cases, except as hereinafter provided.

SEC. 2. The process shall be served only upon the auditor of the legal subdivision garnisheed, and in case there is no auditor, then on the clerk of the county, city, town, district, board of education or other subdivision of the State or board or institution or either of the same, and the answer of such auditor or clerk shall be final and conclusive, and the truth of such answer shall not be subject to further examination or proceedings of any kind.

Approved this 9th day of March, 1905.

CHAPTER 122.—*Mine regulations.*

[This chapter repeals chapter 85, Laws of 1901, and reenacts the same with a few slight changes and the following added provisions:]

SECTION 12.

* * * * *

(20) Whenever the mine inspector discovers in any mine in which blasting of the coal is allowed during working hours that the air is becoming vitiated by unnecessary blasting of the coal, he shall have the power to regulate the use of the same, and to designate at what hour of the day blasting may be permitted, except that where coal is shot off the solid without undermining at least three periods for shooting shall be allowed during each working day.

SEC. 13.

* * * * *

(3) No explosive oil shall be used or taken into coal or hydrocarbon mines of Utah for lighting purposes, except when used in approved safety lamps, or when used by day men when diluted with a nonexplosive animal or vegetable oil. And oil for such purpose shall not be stored or taken into the mines in quantities exceeding five gallons, in tight cans approved by the State coal mine inspector. The oiling or greasing of cars inside of the mines is strictly forbidden unless the place where said oil or grease is used is thoroughly cleaned at least once every day to prevent the accumulation of waste oil or grease on the roads or in the drains at that point, and not more than one barrel of lubricating oil shall be permitted in the mine at any one time. Only a pure animal oil or pure cotton-seed oil, or oils, as shall be as free from smoke as pure animal oil or pure cotton-seed oil [sic] shall be used for illuminating purposes in any coal or hydrocarbon mine, except as above provided. Any person found using explosive or impure oil contrary to this section shall be prosecuted as provided for in section 16 of Coal Mining Laws of Utah.

Approved this 17th day of March, 1905.

CUMULATIVE INDEX OF LABOR LAWS AND DECISIONS RELATING THERETO.

[This index includes all labor laws enacted since January 1, 1904, and published in successive issues of the Bulletin, beginning with Bulletin No. 57, the issue of March, 1905. Laws enacted previously appear in the Tenth Special Report of the Commissioner of Labor. The decisions indexed under the various headings relate to the laws on the same subjects without regard to their date of enactment and are indicated by the letter "D" in parentheses following the name of the State.]

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DEPARTMENT OF COMMERCE AND LABOR.

BULLETIN

•
OF THE •

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BULLETIN
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No. 66.

WASHINGTON.

SEPTEMBER, 1906.

THIRD REPORT OF THE COMMISSIONER OF LABOR ON HAWAII.

This report upon the commercial, industrial, social, educational, and sanitary condition of the laboring classes of the Territory of Hawaii was prepared in accordance with the provisions of "An act to provide a government for the Territory of Hawaii," and was transmitted to the House of Representatives on March 2, 1906. The detailed provisions of the act directing this report are contained in section 76 thereof, as amended April 8, 1904, and are as follows:

It shall be the duty of the United States Commissioner of Labor to collect, assort, arrange, and present in reports in nineteen hundred and five, and every five years thereafter, statistical details relating to all departments of labor in the Territory of Hawaii, especially in relation to the commercial, industrial, social, educational, and sanitary condition of the laboring classes, and to all such other subjects as Congress may by law direct. The said Commissioner is especially charged to ascertain the highest, lowest, and average number of employees engaged in the various industries in the Territory, to be classified as to nativity, sex, hours of labor, and conditions of employment, and to report the same to Congress.

This is the third report of this office relating to labor in Hawaii. The first report was transmitted to the Senate under date of February 4, 1902, and was printed as a Senate document, the edition being limited to a small number of copies. The second report was transmitted to the Senate February 26, 1903, and no provision having been made for the printing of an edition large enough to supply public

demands, it was printed in Bulletin No. 47 of this Bureau, in order that the many calls for it might be satisfied and that it might receive more general circulation. The present report is printed here for the same reason.

ORIENTALIZATION OF LABORING POPULATION AND ITS RESULTS.

DOMINANCE OF THE SUGAR INDUSTRY.

The Territory of Hawaii is unique among our insular dependencies in the labor problem which it presents. Unlike Porto Rico and the Philippines, it has no native population large enough to supply the demand for workers which the developed resources of the islands have created. Unlike them, also, it is wholly dependent upon a single industry, not only for its economic prosperity, but even for the subsistence of its population. While most other tropical countries have diversified their forms of agriculture, Hawaii has specialized until now the Territory is practically one vast sugar plantation. The total value of all the crops taken from the soil of the Territory in 1899, as shown by the Twelfth Census, was \$21,292,422. Of this total the products of the sugar-cane fields represent \$18,762,996, leaving only \$2,529,426 to represent the entire value of all other crops taken together—and of these crops the products of the rice fields represented \$1,562,051. The entire value of the product of live stock for the year 1899 was only \$623,215, and the total value of all the live stock on farms in the islands was \$2,570,142. The figures strikingly illustrate the dominant position of the sugar industry in the agriculture of the islands.

Agriculture, furthermore, represents the only resource of Hawaii. Owing to their volcanic origin, the islands are without mineral resources, and their geographical isolation cuts them off from any development of manufacturing, leaving them dependent for economic prosperity upon agriculture alone. The census of 1900 gives the entire capital invested in mechanical and manufacturing industries in Hawaii as \$11,541,655. Of this amount \$7,991,642 represents capital invested in sugar factories, leaving \$3,550,013 to represent the entire capital invested in manufacturing and mechanical industries other than the manufacture of sugar. These other industries are, moreover, in very large part subsidiary to the sugar industry. Thus under the classifications "Fertilizers" and "Foundry and machine-shop products"—both of which are almost entirely adjuncts to the sugar plantations—the capital represented is \$915,304 and \$607,883, respectively, or a total of \$1,523,187. Aside from sugar, therefore, and two indus-

tries maintained almost entirely by sugar, a capital of approximately \$2,000,000 represents the entire manufacturing industry of the islands.

The dominance of the sugar industry in the economic structure of the islands is equally indicated by their export statistics. For the fiscal year ending June 30, 1905, the total value of the export products of the Territory was \$36,123,867. Of this amount sugar alone represented \$35,113,409.

Directly or indirectly all industries in the Territory of Hawaii are ultimately dependent upon the sugar industry—the social, the economic, and the political structure of the islands alike are built upon a foundation of sugar.

The production of sugar cane is carried on upon a larger scale than on the mainland. A single plantation often contains thousands of acres, stretches for several miles along the seacoast, numbers its employees by the hundreds and sometimes by the thousands, produces in a single year up to 40,000 tons of sugar, and represents a capitalization of millions of dollars.

ASIATIC CHARACTER OF LABOR IN SUGAR INDUSTRY.

The growth of the sugar industry in Hawaii has been conditioned by the importation of cheap labor. Although the earliest plantations were worked by natives, the native Hawaiian population has decreased to such an extent, and the area under cultivation in cane has so increased, that all the workers of that race in the islands would not now provide more than one-seventh of the men needed in the cane fields. During the continuance of the Hawaiian monarchy and, to a certain extent, up to the time of annexation, plantation interests controlled the policy of the local government toward immigration, and the convenient and inexhaustible cheap labor markets of Asia were left open to the island employers.

Thus stimulated, the sugar industry became abnormally profitable and expanded in response to expectations based upon legislative and political rather than upon natural advantages, and the labor markets of Asia were drawn upon without stint. For nearly forty years prior to annexation coolies from China and Japan were imported for the Hawaiian plantations under a form of contract which prescribed the condition of workers under a penal sanction. The term of these contracts, however, was fixed and comparatively brief. The laborers were free to return to their native land at the expiration of their period of service, and so great a proportion availed themselves of this privilege that these imported workers did not, like the West Indian slaves, leave a resident population behind them. Consequently, Hawaii is to-day a country with a demand for labor such as usually follows a period when development and settlement have gone hand in hand; but partly because employing interests have followed a policy

which gave large immediate profits without forecasting possible future embarrassments, and partly from other causes, settlement of the Territory has been retarded rather than furthered by industrial expansion, and the planters are still largely dependent upon imported laborers.

The following tables, giving the number and nationality and the percentage of each nationality of sugar plantation employees in specified years from 1892 to 1905, show the Asiatic character of that body of workers, together with the very large preponderance of a single nationality:

NUMBER OF EMPLOYEES OF EACH NATIONALITY ON SUGAR PLANTATIONS IN SPECIFIED YEARS, 1892-1905.

[Figures for 1892 to 1902 from Hawaiian Annual.]

Nationality.	1892.	1894.	1896.	1898.	1901.	1902.	1904.	1905.
Japanese.....	13,009	13,884	12,893	16,786	27,537	31,029	31,841	31,735
Chinese.....	2,617	2,786	6,289	7,200	4,976	3,937	3,677	4,409
Korean.....							2,666	4,683
Portuguese.....	2,526	2,177	2,268	2,064	2,417	2,669	2,805	3,005
Hawaiian and Part-Hawaiian.....	1,717	1,903	1,615	1,482	1,470	1,493	1,207	1,452
Porto Rican.....					2,095	2,036	2,101	1,907
Caucasian (a).....	516	563	600	979	991	1,032	1,015	1,006
Negro, South Sea Islander, and other.....	141	181	115	68	101	46	44	32
Total.....	20,526	21,494	23,780	28,579	39,587	42,242	45,356	48,229

a Excepting Portuguese and Porto Rican.

b Given in the Hawaiian Annual as 20,536.

c Given in the Hawaiian Annual as 21,294.

PERCENTAGE OF EMPLOYEES OF EACH NATIONALITY ON SUGAR PLANTATIONS IN SPECIFIED YEARS, 1892-1905.

Nationality.	1892.	1894.	1896.	1898.	1901.	1902.	1904.	1905.
Japanese.....	63.38	64.60	54.22	58.73	69.56	73.46	70.20	65.80
Chinese.....	12.75	12.96	26.45	25.19	12.57	9.32	8.11	9.14
Korean.....							5.88	9.71
Portuguese.....	12.31	10.13	9.54	7.22	6.11	6.32	6.18	6.23
Hawaiian and Part-Hawaiian.....	8.36	8.85	6.79	5.19	3.71	3.53	2.66	3.01
Porto Rican.....					5.29	4.82	4.63	3.95
Caucasian (a).....	2.51	2.62	2.52	3.43	2.50	2.44	2.24	2.09
Negro, South Sea Islander, and other.....	.69	.84	.48	.24	.26	.11	.10	.07
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

a Excepting Portuguese and Porto Rican.

INCREASING PROPORTION OF ASIATIC POPULATION.

Not only is the plantation working force overwhelmingly Asiatic, but a secondary Asiatic population, living largely on the first and supplying its needs, has come into the islands, has invaded all lines of industry, and the two combined now form the largest element in the total population. From a total Asiatic population of less than 6,000 in 1878, forming only 10.2 per cent of the population of the islands, the number of Asiatics had increased to 18,000 in 1884, and formed over 22 per cent of the total population. By 1890 the foreign-born Asiatics had increased to 27,000, and constituted over 30 per cent of the population. During the next six years their numbers had increased to over 41,000, and they formed over 38 per cent of the population. In June,

1900, the month in which the organic act creating Hawaii a Territory went into effect, the number of foreign-born Asiatics had increased to over 77,000, and formed more than 50 per cent of the entire population. The gradual growth of the Asiatic population to its present numerical preponderance is given in the following table, showing the population at the census periods from 1853 to 1900, together with the racial elements composing it:

POPULATION AT CENSUS PERIODS FROM 1853 TO 1900, BY COLOR OR RACE.

[The data for population from 1853 to 1896, inclusive, have been taken from the Hawaiian Annual for 1901, and those for 1900 from the records of the Twelfth Census.]

Color or race.	1853.	1860.	1872.	1878.	1884.	1890.	1896.	1900.
Hawaiian	70,036	57,125	49,044	44,088	43,014	34,436	31,019	29,799
Part-Hawaiian	983	1,640	1,487	3,420	4,218	6,186	8,485	7,857
Foreign-born Chinese	364	1,206	1,938	5,916	17,937	15,301	19,382	21,746
Foreign-born Japanese					116	12,360	22,329	56,230
All other	1,755	2,988	4,428	4,561	18,293	21,707	27,805	38,369
Total	73,138	62,959	56,897	57,985	80,578	89,990	109,020	154,001

These figures are necessary to make the totals given, but they do not agree with details as found in the Hawaiian Annual.

PER CENT OF EACH SPECIFIED COLOR OR RACE OF TOTAL POPULATION FOR EACH CENSUS YEAR, 1853-1900.

Color or race.	1853.	1860.	1872.	1878.	1884.	1890.	1896.	1900.
Hawaiian	95.76	90.73	86.20	76.03	49.66	38.27	28.45	19.35
Part-Hawaiian	1.34	2.60	2.61	5.90	5.24	6.87	7.78	5.10
Foreign-born Chinese	.50	1.92	3.41	10.20	22.26	17.00	17.78	14.12
Foreign-born Japanese					.14	13.74	20.48	36.51
All other	2.40	4.75	7.78	7.87	22.70	24.12	25.51	24.92
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The preponderance of Asiatics is even more marked in the census figures showing sex. As will be seen from the following table, out of a population of 106,369 males, the native and foreign-born Asiatic element taken together represent 69,804, or 65.6 per cent of the total male population:

POPULATION IN 1900, BY SEX AND COLOR OR RACE.

[The data included in this table have been taken from the records of the Twelfth Census.]

Color or race.	Males.	Females.	Total.
Hawaiian	15,642	14,157	29,799
Part-Hawaiian	3,971	3,886	7,857
Caucasian	16,531	12,288	28,819
South Sea Islander	263	152	415
Negro	158	75	233
Chinese	22,296	3,471	25,767
Japanese	47,508	13,603	61,111
Total	106,369	47,632	154,001

The Asiatic preponderance in the population of Hawaii appears still more significantly in the figures giving *adult* males alone. In 1900 the total male population 18 years of age or over was 85,136, of which number Chinese and Japanese made up 63,444, or 74.52 per cent of

the total. The following table shows the male population 18 years of age or over by races:

NUMBER AND PER CENT OF MALES 18 YEARS OF AGE OR OVER IN 1900, BY RACES.

[The data included in this table have been compiled from the records of the Twelfth Census.]

Color or race.	Number.	Per cent.
Hawaiian.....	9,856	11.87
Part-Hawaiian.....	1,497	1.76
Caucasian.....	9,994	11.74
South Sea Islander.....	237	.23
Negro.....	108	.13
Chinese.....	19,691	23.13
Japanese.....	48,753	51.39
Total.....	85,136	100.00

This abnormally large proportion of Asiatic nationalities among the adult male population is due to the fact that Asiatics have been brought over as laborers, and that able-bodied men have consequently, until very recently, formed almost the entire body of immigrants, the immigration of women and children having been discouraged.

It is not possible to determine with any approach to exactness the present population of the Hawaiian Islands, but sufficient data have been secured to form an approximate idea as to whether any considerable changes have taken place in the relative numbers of different nationalities in the population as the result of immigration. The following table shows the additions to the population other than Hawaiian and Asiatic due to the immigration of foreigners to Hawaii since the census of 1900:

ALIENS ADMITTED TO HAWAII, 1901 TO 1905, BY RACES OR PEOPLES (EXCEPTING CHINESE, JAPANESE, AND KOREANS).

[From reports of the Bureau of Immigration.]

Race or people.	During year ending June 30—					Total.
	1901.	1902.	1903.	1904.	1905.	
Bohemian and Moravian.....			1			1
Bulgarian, Servian, and Montenegrin.....	2	1				3
Croatian and Slavonian.....				6		6
Dutch and Flemish.....	2	1	1	5		9
East Indian.....		2				2
English.....	219	283	193	109	92	896
Filipino.....			4			4
Finnish.....	1		16			17
French.....	5	4	7	6	6	28
German.....	22	20	43	26	28	139
Greek.....			3		2	5
Irish.....	11	1	10	2	6	30
Italian (north).....	3		4	2	2	11
Italian (south).....					2	2
Negro.....		1	4			5
Pacific Islander.....	7	6	1	3	2	19
Polish.....	1		2			3
Portuguese.....	85	35	12	12	8	147
Russian.....	5	1	23	2		31
Scandinavian (Norwegians, Danes, and Swedes).....	11	4	65	7	9	96
Scottish.....	14	6	25	37	26	118
Spanish.....	2		1			3
Spanish-American.....			13			13
Turkish.....				1		1
Welsh.....			3	1	1	5
West Indian.....						4
All other peoples.....		115	16			131
Grand total.....	300	480	445	219	149	1,793

The above table does not, of course, include any Americans who have come from the mainland to settle in Hawaii, as the immigration records show only the admission of aliens. The white immigration into the Territory has been comparatively slight, and since 1902 has been steadily diminishing in numbers.

The total increase in the Caucasian population through immigration, as shown above, has been comparatively small at the best, but the figures of arrivals are, to a considerable extent, offset by the steady departure of whites, which has been going on since the cessation of the excitement attending annexation. No figures are available showing the extent of the loss to the white population through this emigration, but the departure in considerable numbers has been a very noticeable fact.

The principal movement of population by immigration and emigration has, however, been among the Asiatic elements. The records of the immigration service give complete and accurate data as to arrivals of Asiatics; but, unfortunately, no record of departures to the Orient is kept by the immigration service, and as Hawaii and the mainland are integral parts of the United States there is still less occasion for keeping any record of travel between these points. Figures have been secured, however, from several sources showing the departures of Asiatics from Hawaii, both to the Orient and to the Coast, and are believed to be approximately correct. It was not possible to secure these figures for departures, either for the same divisions of time or under the same sex classifications as the official figures for arrivals, but the form in which they have been secured permits of some general comparisons with the table of arrivals. The statistics of departures of Orientals begin with June 14, 1900, while those for arrivals begin with the date of July 1, 1900. With this exception, the arrivals and departures are comparable for the period from the date of the census up to December 31, 1905.

ARRIVALS OF CHINESE, JAPANESE, AND KOREANS IN THE TERRITORY OF HAWAII
FROM JULY 1, 1900, TO DECEMBER 31, 1905.

[From the records of the Bureau of Immigration.]

Period.	Chinese.				Japanese.				Korean.				Total.			
	M.	F.	Total.	Under 14.	M.	F.	Total.	Under 14.	M.	F.	Total.	Under 14.	M.	F.	Total.	Under 14.
Year ending—																
June 30, 1901.	1,060	341	1,094	.....	226	112	338	.....	4	.....	4	.....	1,290	146	1,436	.....
June 30, 1902.	262	35	297	.....	5,553	3,672	9,125	.....	12	.....	12	.....	5,827	3,607	9,434	.....
June 30, 1903.	544	29	573	.....	9,835	3,210	13,045	.....	454	61	515	.....	10,833	3,000	14,133	.....
June 30, 1904.	402	10	412	7	5,626	961	6,587	761	1,700	183	1,883	133	7,728	1,154	8,882	216
June 30, 1905.	198	4	202	4	5,979	708	6,687	59	4,471	411	4,882	314	10,648	1,123	11,771	377
Total.....	2,466	112	2,578	11	27,219	8,563	35,782	135	6,641	655	7,296	447	36,326	9,330	45,656	593
July, 1905.....	8	1	9	.....	214	48	262	7	71	21	92	17	293	70	363	24
August, 1905.....	19	1	20	.....	263	45	308	6	.....	.....	.....	.....	282	46	328	5
September, 1905.....	16	.....	16	.....	120	22	142	1	2	1	3	1	138	23	161	2
October, 1905.....	18	1	19	2	143	28	171	4	1	.....	1	.....	162	29	191	6
November, 1905.....	14	.....	14	.....	553	106	659	10	.....	.....	.....	.....	567	106	673	10
December, 1905.....	7	.....	7	1	644	61	705	8	2	.....	2	.....	653	61	714	5
Total (July 1, 1900-Dec. 31, 1905).....	2,548	115	2,663	14	29,156	8,873	38,029	166	6,717	677	7,394	465	38,421	9,665	48,086	645

DEPARTURES OF CHINESE, JAPANESE, AND KOREANS FROM HAWAII TO THE ORIENT AND THE COAST FROM JUNE 14, 1900, TO DECEMBER 31, 1905.

Period.	Chinese.				Japanese.				Korean.				Total.			
	M.	F.	Children	Total.	M.	F.	Children	Total.	M.	F.	Children	Total.	M.	F.	Children	Total.
June 14, 1900, to June 30, 1902	3,734	491	(a)	4,225	6,627	1,442	(a)	8,069					10,361	1,933	(a)	12,294
July 1, 1902, to Sept. 30, 1902	489	22	68	579	1,410	253	177	1,840					1,899	275	245	2,419
Oct. 1, 1902, to Sept. 30, 1903	1,333	101	196	1,630	5,000	1,140	804	6,944					6,333	1,241	1,000	8,574
Oct. 1, 1903, to June 30, 1904	962	57	129	1,138	4,769	839	708	6,346	6	1	1	8	5,727	927	868	7,492
July 1, 1904, to June 30, 1905	1,019	71	186	1,276	11,233	1,693	1,328	14,254	350	23	13	386	12,602	1,787	1,527	15,916
July, 1905	71	7	19	97	723	111	93	927	79	3	5	87	873	121	117	1,111
August, 1905	41	1	7	49	665	131	139	995	51	3	2	56	757	135	148	1,040
September, 1905	84	3	11	98	636	162	192	990	74	5	3	82	794	170	206	1,170
October, 1905	136	12	26	174	446	98	90	634	40	4	4	48	622	114	120	836
November, 1905	75	8	25	108	278	33	24	335	33	1		34	386	42	49	477
December, 1905	97		2	99	257	39	25	321	20			20	374	39	27	440
By Matson Line ^b					(a)	(a)	(a)	718					(a)	(a)	(a)	718
Total	8,031	778	669	9,473	32,044	5,971	3,580	42,313	653	40	28	721	40,728	6,784	4,277	52,507

^a Not reported separately.^b Figures are for 1903, 1904, and to June 30, 1905; figures for each year and for age and sex not separately reported.^c Not including data for 718 Japanese, age and sex not reported.

The tables given above show that from the date of the census up to December 31, 1905, the total arrivals of Chinese were 2,663, as against 9,473 departures for the period embraced in the table of departures, a loss in the Chinese population of 6,810.^(a) The total arrivals of Japanese to December 31, 1905, were 38,029, as against 42,313 departures,^(a) a decrease in the Japanese population of 4,284. The Koreans during this period show 7,394 arrivals, as against 721 departures,^(a) an increase in that nationality of 6,673. The net result, considering the three Asiatic nationalities, is a decrease of population through emigration of 4,421 during this period of five and one-half years. It is worthy of note that in the six months from July to December, 1905, there was an excess of departures over arrivals of 3,382, or over three-fourths of the total decrease for the whole period shown in the tables. Of this latter number 540 were Chinese, 2,613 were Japanese, and 229 were Koreans.

Although there are no figures available upon which to base an estimate as to the absolute growth of population in Hawaii during the period under consideration through natural increase, it is possible to arrive at a general idea of the probable relative changes among the various elements of the population due to the different ratios of births and deaths.

The Hawaiians are a rapidly vanishing race, having diminished steadily from 70,036 in 1853 to 29,799 in 1900, a disappearance of

^a This table of departures, as noted in the text, embraced the period from June 14 to June 30, 1900, which is not included in the period for which arrivals are given.

57.45 per cent of that nationality in a period of less than fifty years. This diminution is due to the excess of the death rate over the birth rate, a condition still continuing, with no prospect of cessation. This element in the population of the Territory is therefore steadily growing smaller.

As for the Caucasians, the birth rate in general is probably higher than it is in this country, as the climate of Hawaii, like that of all tropical countries, is conducive to fecundity. The Portuguese element of the white population in particular have unusually large families. This higher birth rate, as compared with the United States, is, however, slightly modified by the lower proportion of married females to the total white population. The table below gives the proportion of married females to total population for the principal elements in the Hawaiian population:

MARRIED FEMALES AND TOTAL POPULATION OF HAWAII, BY NATIONALITIES.

[These figures are compiled from the records of the Twelfth Census.]

Nationality.	Married females.	Total population.	Per cent of married females of total population.
Hawaiian	6,590	29,799	22.1
Part-Hawaiian	1,001	7,857	12.7
Caucasian	4,730	28,819	16.4
Chinese	1,409	25,767	5.5
Japanese	10,232	61,111	16.7

NOTE.—The per cent of married females to total population in the United States is 18.1.

The distribution of the population in Hawaii by certain age groups is also given in the following table, and as the distribution of Caucasians differs very slightly from the corresponding age groups in the United States as a whole, the death rate among the Caucasian element of the population would probably not differ greatly from the death rate of a similarly situated population in the United States. The white element of the population in Hawaii is probably increasing by the excess of births over deaths a little more rapidly than would be the case with a similar population on the mainland.

PER CENT OF TOTAL POPULATION UNDER EACH AGE GROUP.

Age groups.	Hawaii.					United States.
	Hawaiian.	Part-Hawaiian.	Caucasian.	Chinese.	Japanese.	
Under 10 years.....	21.52	40.17	27.49	11.36	9.35	23.69
10 to 20 years.....	22.42	28.89	21.92	11.25	7.14	22.56
21 to 44 years.....	34.16	26.17	35.40	61.26	80.95	35.76
45 to 54 years.....	8.98	2.99	8.59	9.79	2.22	8.41
55 to 64 years.....	5.98	1.14	4.36	5.14	.21	5.25
65 years or over.....	6.13	.42	1.96	.84	.02	4.04
Age unknown	.81	.22	.28	.36	.11	.29
Total.....	100.00	100.00	100.00	100.00	100.00	100.00

The very small percentage of married females in the Chinese population indicates that the increase of this population through births will be comparatively slight. Although 7,394 Koreans had come into the islands from July 1, 1900, to December 31, 1905, only 677 females were included in this number. The addition to the Korean population through native births will therefore probably be insignificant. On the other hand, the percentage of increase in the Japanese population through the excess of births over deaths will probably be higher than the percentage of increase in the Caucasian population. The birth rate among the Japanese is high. On one plantation with a Japanese population of 436 there were 120 children, and of these 45 were less than 6 years old. The percentage of married females in the total Japanese population is very slightly higher than it is in the Caucasian population, so that with a higher birth rate and an equal death rate the Japanese population would increase more rapidly proportionately than the whites; but the death rate among the Japanese is probably far lower than among any of the other nationalities in the islands. Normally the death rate of those below 10 years of age and those above 45 would be higher than for any corresponding period between these limits.

As will be seen by the table above, the proportion of the Japanese population under 10 is far below the proportion of the Caucasian population under 10, and the same is true of the numbers over 45. Over 80 per cent of the Japanese population is included in the age period from 21 to 44, and since the sick and disabled Japanese return home and their places are supplied by strong and able-bodied men, the death rate among this population in Hawaii would be abnormally low. Therefore, with a little larger per cent of married females in the Japanese population, with a higher birth rate, and a very much lower death rate, the growth of the Japanese population through natural increase would be far higher than that of any other nationality in the islands. Moreover, the figures for immigration and emigration show the addition of over 2,900 female Japanese to the Japanese population since the date of the census, thus increasing largely the per cent of married females among that element of population.

This complete Orientalization of the islands and the resulting character of the working population has created an acute labor problem in Hawaii that presents three phases, according as it is considered from different view points. For the employer, represented chiefly by the sugar planter, the problem is one of securing a sufficient and a stable labor force; for the white and native wage-earners and small merchants the problem is one of survival in the face of an increasing, irresistible, and disastrous competition of Asiatics with their lower standard of living; and from the view point of the citizens of the Territory—

and of the people of the United States—the problem is one of securing a working population with the civic capacity necessary to the upbuilding of a self-governing American commonwealth.

The labor problem has been increasingly perplexing since Hawaii became a portion of the United States. Previous to that time, viewed purely from the employers' standpoint, the planters were in an ideal situation. With inexhaustible markets from which to draw cheap labor, and with penal contracts which gave them many of the advantages of slavery without its disadvantages, they were free from the perplexities of the labor problem as employers know it in a free country. Annexation changed these conditions. While it assured a protected market to the planters, it cut off entirely the supply of Chinese coolies and revolutionized the relations of employer and employee by abolishing the penal contract. As an integral though somewhat isolated part of the United States, the Territory of Hawaii necessarily became subject to legislation and to policies not primarily destined for the support of its special industries; and it is beginning to feel strongly the influence of that subtle but insistent impulse toward homogeneity of institutions and of sentiments with the mainland which constitutes the essence of national assimilation. Every separate element of this change, however desirable from a civic viewpoint, is more or less a disturbing factor in business. It creates uncertainties, and the planters no longer control their own destiny. The soil and the climate remain essentially unchanged, the material conditions of production are better than ever before, transportation facilities are increasing, and the cost of marketing their product is decreasing. All of the purely economic conditions of cane planting and sugar making are improving; even in the administration of labor there is progress, and it is doubtful if increased wages have generally resulted in an equally increased cost of production. But the problem of plantation management as a whole, and especially the problem of a labor supply, is more exigent than ever before.

In spite of the large Asiatic population, there is frequently a very real and a keenly felt shortage of labor on the sugar plantations. The labor demand for plantation work has been a rapidly growing one, the number of plantation laborers having risen from 24,653 in 1897 to 48,229 in the year 1905. At the time of the report on Hawaii in 1902 there was a marked shortage of labor on the plantations, amounting to about 5,500 men, or 12 per cent of the total force employed. This shortage seemed to have disappeared in 1905, as the only cases in which complaint was heard of lack of laborers were upon a few of the plantations in the immediate vicinity of Hilo. The increase of about 6,000 employees since 1902 has been largely in response to a demand existing at that time, and is due only slightly to an expansion of the

sugar industry. The restored equilibrium in the plantation labor force has been due to several causes. There was less development of work going on in 1905 than in 1902, and the ravages of the leaf hopper had affected the crops on some plantations to an extent that appreciably diminished the demand for laborers. On the other hand, the widespread depression in the rice industry—which is almost exclusively carried on by the Chinese—had sent some of this race back to work in the cane fields, and the importation of Koreans had also added to the available labor supply. So far as the plantations are concerned the arrival of any number of Koreans at a given period will more than offset the departure of an equal number of Japanese. Not all of the Japanese leaving are adult males, nor do all the adult males represent losses to the plantations, because a proportion of the men leaving are from the Asiatics not engaged in plantation labor. On the other hand, the Koreans represent almost entirely adult males, and practically the whole number go at once to work on plantations. The Korean immigration has thus been the principal factor in easing the labor situation for the planters.

But while the actual scarcity of labor complained of in 1902 has been remedied, the instability and the aggressiveness of the Asiatic labor force have increased, and in the minds of the planters have become a serious menace to the continued prosperity of the sugar industry. The instability in the labor supply is due to a double competition which the planters have to face. There is competition between them and the other industries in Hawaii, and competition with the industries of the mainland. Although in 1900 the Asiatic male population of 18 years or over numbered 63,444, there were employed on the plantations only 32,513 Asiatics; and as numbers of women and also of males under 18 are at work on the sugar plantations, it is apparent that not quite 50 per cent of the male Asiatic labor supply was available for the planters.

The small proportion of Chinese population employed on the sugar plantations is still more noticeable. There were only 4,976 of that nationality on the plantations in 1900, although there were 19,691 Chinese males 18 years of age or over in the islands.

Not only have the various trades and mercantile pursuits absorbed a large per cent of the Oriental population, but the census figures show further that Asiatics are also among the owners and tenants in agriculture. Seven hundred and fourteen Chinese and 530 Japanese were owners or tenants in 1900, holding 24,466 acres.

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The table of occupations of males given below, taken from the census of 1900, will show the various trades and occupations in competition with the plantations for the services of Orientals:

NUMBER OF MALES 10 YEARS OF AGE OR OVER ENGAGED IN GAINFUL OCCUPATIONS, 1900.

Occupation.	White. (a)	Negro.	Chinese and Japanese.	Total.	Per cent of Chinese and Japanese of total.
AGRICULTURAL PURSUITS.					
Agricultural laborers	1,503	14	44,370	45,887	96.69
Farmers, planters, and overseers	2,602	4	3,654	6,260	58.37
Gardeners, florists, nurserymen, etc.	83	1	531	615	86.34
Lumbermen, wood choppers, etc.	56		69	125	55.20
Stock raisers, herders, and drovers	341		72	413	17.43
Other occupations	31	1	48	80	60.00
Total	4,616	20	48,744	53,380	91.32
PROFESSIONAL SERVICE.					
Clergymen	132		85	167	20.96
Engineers (civil, etc.) and surveyors	136		1	137	0.73
Lawyers	165		5	170	2.94
Officials (government)	172	1	12	185	6.49
Teachers and professors in colleges	172		29	201	14.43
Other occupations	341	22	71	434	16.36
Total	1,118	23	153	1,294	11.82
DOMESTIC AND PERSONAL SERVICE.					
Barbers and hairdressers	35	2	163	200	81.50
Laborers (not specified)	5,875	28	3,493	9,396	37.18
Laundresses	16		572	588	97.28
Restaurant and saloon keepers	30		113	143	79.02
Servants and waiters	147	6	2,611	2,763	94.50
Soldiers, sailors, and marines (United States)	244	1		245	
Stewards	26		102	128	79.69
Watchmen, policemen, firemen, etc	449	1	63	513	12.28
Other occupations	114		131	245	53.47
Total	6,936	37	7,248	14,221	50.97
TRADE AND TRANSPORTATION.					
Bankers, brokers, officials of banks, etc.	153	1	34	188	18.09
Boatmen and sailors	395	5	70	470	14.89
Bookkeepers, clerks, stenographers, etc	1,068		645	1,713	37.65
Draymen, hackmen, teamsters, etc	796	5	460	1,261	36.48
Hostlers	85		162	247	65.59
Hucksters and peddlers	35		165	200	82.50
Merchants and dealers	339	1	1,122	1,462	76.74
Messengers, packers, porters, etc	50		74	124	59.68
Salesmen	164		397	561	70.77
Steam railroad employees	86		76	162	46.91
Other occupations	239		41	280	14.64
Total	3,410	12	3,246	6,668	48.68
MANUFACTURING AND MECHANICAL PURSUITS.					
Bakers	18		139	157	88.54
Blacksmiths	271		125	396	31.57
Boot and shoe makers and repairs	37		89	126	70.63
Butchers	89		119	208	67.21
Carpenters and joiners	972		983	1,955	50.28
Engineers and firemen (not locomotive)	442	2	195	639	30.52
Fishermen and oystermen	596		461	1,057	43.61
Iron and steel workers	167		5	172	2.91
Machinists	137		24	161	14.91
Manufacturers and officials, etc	113		107	220	45.64
Masons (brick and stone)	182	1	47	230	20.43
Painters, glaziers, and varnishers	270	2	130	402	32.34
Printers, lithographers, and pressmen	117	1	17	135	12.59
Sugar makers and refiners	102	2	508	612	83.01
Tailors	38		530	568	93.31
Other occupations	753		693	1,446	47.93
Total	4,304	8	4,172	8,484	49.17
Grand total	20,384	100	63,563	84,047	75.63

^aThe word "white," as used in this table, includes not only Caucasians but also Hawaiians, Partisians, and South Sea Islanders.

**COMPETITION OF LOCAL AND PACIFIC COAST INDUSTRIES WITH
SUGAR INDUSTRY FOR ASIATIC LABOR.**

The competition with local industries, however, is permanent and more or less uniform. It does not, therefore, constitute the same kind of a menace to the planters as does the competition which has recently developed on the mainland, and which has rendered the plantation labor force peculiarly unstable and insecure. The Asiatics are no longer attached to the plantations by any legal bonds, and there are no natural ties that bind them to the islands. Their migration to Hawaii itself is an uprooting, and a breaking of the ties that attach them to their place of birth and their home land. They come to Hawaii impelled by a purely economic motive, expecting to return to their native land. They are a body of industrial excursionists, and form consequently an unusually mobile population, peculiarly responsive to any economic stimulus to further migration. They move freely to any new labor market offering more favorable terms than Hawaii, and the planters of the Territory now find themselves obliged to compete actively for workers with the orchardists and farmers of California and with the railway builders and other large contractors of the West and Northwest. Therefore the planters not only must offer higher wages than formerly, but they must adapt their methods of controlling and disciplining their employees to the freer standards of the mainland States. Conditions of employment for a mobile population—like that which the labor policy of the planters has encouraged in the Territory—tend to reach a state of equilibrium over a much broader area than the Territory itself. Hawaii has been industrially as well as politically annexed; and in response to laws more potent than legislative enactments a uniform status of labor is being created throughout all our western country, even to these islands in the mid-Pacific. This effect of annexation is as permanent as it is revolutionary. Henceforth the Hawaiian planters must bid against the Pacific Coast for their immigrant labor not only in money but in manner of treatment. The tables on pages 371 and 372, showing arrivals and departures during a period of five and one-half years, show how transient and unstable is the Japanese element in the population of Hawaii. The following table gives departures from Hawaii to the mainland, and shows how this mainland competition is growing and becoming a more and more serious menace to the plantation interests:

DEPARTURES OF ORIENTALS FROM HAWAII TO THE MAINLAND.

Period.	Number.
January 1, 1902, to September 30, 1902.....	1,054
October 1, 1902, to September 30, 1903.....	2,119
October 1, 1903, to June 30, 1904.....	3,665
July 1, 1904, to June 30, 1905.....	11,132
July 1, 1905, to September 30, 1905.....	1,798
October 1, 1905, to December 31, 1905.....	573

Since the figures in the foregoing table include perhaps 300 Koreans and less than 75 Chinese, it may be taken practically to represent the migration of Japanese from Hawaii to the Coast. It shows the rapid increase in the number of Japanese leaving Hawaii up to June 30, 1905, and explains the uneasy and apprehensive state of mind in which the planters were in the first half of that year. While the entire number of Asiatics leaving for the mainland for the two years and a half ending June 30, 1904, had been less than 7,000, the number increased in the following year alone to over 11,000. In July, 1905, the number of departures was 697; but during the months of August and September the number dropped to 660 and 441, respectively, while in the last three months of the year 1905 there was a still further decrease.

This migration to the Coast is due chiefly to economic causes. The Japanese have learned that they can earn more money in California than in Hawaii; but it is partly due to social causes. The conditions of labor are freer in the Pacific States than on the large plantations of Hawaii, where the traditions of penal contract days have not entirely disappeared. To a large extent this movement has been prompted by immigrant agents, analogous to the Italian padrones in New York, who have business connections in San Francisco and Seattle and work in the interest of contractors and other large employers on the Coast.^(a)

^a The following translations of advertisements calling for laborers to go to the mainland, published in Japanese papers, printed in Honolulu in the spring of 1905, show the positive inducements offered to laborers in the islands by Japanese labor bureaus in America:

RECRUITING LABORERS TO AMERICA.

For the S. P. R. R. Co., 800 men; for Alaska, 200 men. Advance \$20 for passage to San Francisco. Applications for Alaska close 28th inst. Egi. Kyujiro, Prop. Shiranui Hotel, San Francisco. Apply to the below mentioned hotels in Honolulu (followed by the names of 11 Japanese hotels).—*From Hawaiian-Japanese Chronicle of March 22, 1905.*

GREAT RECRUITING TO AMERICA.

Through an arrangement made with Yasuzawa, of San Francisco, we are able to recruit laborers to the mainland, and offer them work. The laborers will be subjected to no delay upon arriving in San Francisco, but can get work immediately through Yasuzawa. Employment offered in picking strawberries and tomatoes, planting beets, mining, and domestic service. *Now is the time to go! Wages \$1.50 a day.* Tokujiro Inaya—Niigata Kenjin—Care of Nishimura Hotel. Apply to the Honolulu agency for further particulars, giving the name of your plantation.—*From Hawaiian-Japanese Chronicle of March 22, 1905.*

The undersigned has appointed Harutada Yasumura agent for recruiting laborers for the mainland. Any laborer will be given work upon presentation of a letter of introduction from the above agent. We guarantee that the laborers receive work from only responsible parties. Tooyo Boyeki Kwaisha (Oriental Trading Company), Seattle. Honolulu agency at Hong Song Hotel.—*From Hawaiian-Japanese Chronicle of March 22, 1905.*

SPECIAL NOTICE.

In the next three months we shall recruit 1,000 laborers of Niigata Province, Japan, for the mainland. Apply to the hotel below. Don't miss! The Indus-

But once started this migration is likely to continue without artificial stimulation. Plantation employees in Hawaii reported that they and their friends were constantly receiving letters from Japanese who had gone to California, telling them of the high wages and generally favorable conditions in that country, and advising them to come over and share these advantages.

The increasing emigration to the Coast is a source of worry and apprehension to the planters. Up to the present time they have been able to supply the places of those departing for the mainland by fresh importations from Japan and Korea, but changed conditions in Japan and Korea restricting emigration, or the beginning of any unusually large development work on the Coast may at any time so check the tide of immigrants or stimulate the flow to the mainland as seriously to interfere with the carrying on of plantation work.

CONTROL OF PLANTATION LABOR SITUATION BY ASIATICS.

Another aspect of the labor situation as it affects the planters arises out of a preponderance among their laborers of a single nationality. As a result of the exclusion of Chinese since annexation, the supply of imported labor for the plantations was confined entirely to the Japanese, until the beginning of Korean immigration was brought about in 1903. The Japanese have secured a preponderance among the plantation workers which creates serious difficulties of administration, renders the plantations liable to great loss by strikes, and to a certain extent takes

trial Corporation of Japanese of Niigata Province have sent a representative to Hawaii to encourage their countrymen to go to America. This representative, Mr. Seizaku Kuroishi, assists applicants in every way. Yamaichi Hotel. Feb. 1, 1905. (Pro. Fuse Totazo.)—*From Hawaiian-Japanese Chronicle of March 22, 1905.*

Arrangements have been made with the Japanese-American Industrial Corporation of San Francisco, whereby any one leaving Hawaii for the mainland through us can find work. Naigwai Benyeki Shosha.—*From Hawaiian-Japanese Chronicle of March 22, 1905.*

NEW STEAMSHIP LINE OPENED.

With the S. S. *Centennial* we shall inaugurate a new line between San Francisco and Hawaii, and will take freight and passengers. For the convenience of Japanese we have appointed two agents, one at Honolulu and the other at Hilo. This is a large steamer of 3,000 tons, well built and perfectly safe for carrying passengers, making monthly voyages and passage within a week. Passage is cheap. No deposit of \$50 required. Cooks and waiters Japanese, and Japanese food furnished. First sailing March 25. Applications received until day before sailing. S. N. S. S. Co. Agents, Honolulu, Yukinosuki Shibata; Hilo, Yasikichi Toda.—*From Hawaii Shinpo of February 27, 1905.*

SPECIAL STEAMER FOR AMERICA—SAILING DIRECT FOR SEATTLE.

S. S. *Olympia*. Accommodates 500 passengers. Fare, including commissions, \$28. Sails April 18, 1905. Applications for passage received up to April 10, 1905. All wishing to go to America apply to the undersigned, or to the following hotels (list of 16 Japanese hotels in Honolulu). Seattle Occidental Steamship Company, office Han Sang Hotel, Honolulu.—*From Hawaii Shinpo of February 27, 1905.*

out of the hands of overseers and managers the control of administration. As shown in the table below and on page 368, the Japanese in the plantation labor force represent nearly double the number of other nationalities combined. The following table shows the distribution of labor on the Hawaiian plantations by groups of occupations and by nationalities in 1902 and 1905:

DISTRIBUTION OF LABOR ON HAWAIIAN SUGAR PLANTATIONS, BY GROUPS OF OCCUPATIONS AND NATIONALITY, 1902 AND 1905.

Nationality.	Admin- istration.	Culti- vation.	Irriga- tion.	Manu- facture.	Mechan- ical trades.	Super- intend- ence.	Trans- porta- tion.	Unclassi- fied.	Total.
Caucasian: (a)									
1902.....	173	107	51	146	129	353	50	23	1,032
1905.....	195	96	38	146	114	328	42	47	1,006
Portuguese:									
1902.....	43	2,011	54	63	148	202	117	31	2,609
1905.....	43	2,076	49	85	154	266	171	161	3,005
Porto Ricans:									
1902.....	4	1,962	1	10	18	11	29	1	2,036
1905.....	4	1,722	.....	70	4	7	79	21	1,907
Hawaiians and Part-Ha- waiians:									
1902.....	30	994	51	32	87	103	154	42	1,493
1905.....	39	861	36	39	84	114	193	86	1,452
South Sea Islanders and Negroes:									
1902 (b).....	.....	33	.....	.....	5	.....	2	6	46
1905 (c).....	.....	22	.....	.....	2	1	4	3	32
Chinese:									
1902.....	11	3,294	134	286	33	28	64	31	3,881
1905.....	5	3,962	69	269	11	23	39	31	4,409
Japanese:									
1902 (d).....	121	25,849	869	1,640	751	129	1,627	99	31,085
1905.....	132	23,461	608	2,830	590	121	3,709	284	31,735
Koreans:									
1902.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1905.....	10	4,384	1	19	.....	4	248	17	4,683
Totals:									
1902.....	382	34,250	1,160	2,177	1,171	826	2,043	233	42,242
1905.....	428	36,584	801	3,458	959	864	4,485	650	48,229

a Not including Porto Ricans and Portuguese.

b Including 7 Filipinos.

c Including 4 Filipinos.

d Including 445 Chinese and Japanese employed in cultivating; mostly Japanese.

The relatively larger number employed in transportation and manufacturing in 1905 is due to the fact that the information was taken in that year during the height of the grinding season, while in 1902 the figures were compiled at a time when many of the mills were not running. The gains, therefore, of the Japanese in these two fields of employment probably represent laborers transferred from the group of cultivators, but the figures show that the Japanese are still in such large preponderance in several of the most important operations as to practically control the labor situation on the plantations. Thus in cultivation they represent 23,461 out of 36,584, or nearly 65 per cent of the total force employed in that branch of work. In this group, owing to the influx of Koreans, the Japanese have lost slightly in their preponderance, but in the increase in the force in manufacture and transportation due to the grinding season they have made more than

compensatory gains, and in 1905 represented 2,830 out of a total of 3,458 employees in the sugar mills, and 3,709 out of 4,485 in the work of transportation. They now represent over 50 per cent of those employed in the mechanical trades on the plantations. Taking all occupations together, the Japanese in the plantation force increased only 650 between 1902 and 1905, while the total working force arose from 42,242 to 48,229. By far the greater part of this increase was made up of Koreans, so that the actual numerical preponderance of Japanese in the plantation labor force was slightly less in 1905 than it was in 1902, but on the other hand the preponderance of Japanese is becoming more and more a conscious preponderance. While no distinctively labor organizations could be found among the laborers on the plantations, the blood unionism of the Japanese has shown itself even a stronger bond than the trade unionism of American and European workmen. What might properly be termed sympathetic strikes have already occurred on many plantations where a grievance of a small group of Japanese or sometimes of a single worker has resulted in a cessation of work by all the Japanese workers on the plantations, and even the Japanese domestics in the house of the manager have withdrawn and remained away until the settlement of the strike. Sporadic efforts to induce sympathetic strikes on plantations adjoining those on which the Japanese had gone on strike have already been made, and, while not successful to any extent, it is more than probable that sympathetic strikes of Japanese will soon begin to ignore plantation boundaries.

With the growth of a more or less permanent Japanese population in Hawaii, not directly dependent upon the plantations, and with the changes that are taking place in the system of immigration since the abolition of penal contracts (^a) a different class of Japanese is migrating to the Territory. Among these are to be found men with education and a capacity for leadership hitherto exceptional among the immigrants. There is also a strong probability that some Japanese workmen who have resided on the mainland for a time and absorbed more or less knowledge of the trade-union movement from American sources will ultimately disseminate these ideas among their fellow-countrymen in the islands, either personally or through the active correspondence already existing between laborers of that nationality in both places. At least, all these evils—from the employer's standpoint—are anticipated by the more thoughtful plantation people; and during the study of labor conditions in the Territory instances were found of Japanese, not connected with the plantations, engaging actively in the stimulation and direction of plantation strikes. It is everywhere conceded in Hawaii that the present preponderance of Japanese among

^a See section on Japanese immigration, pp. 502-511.

plantation workers constitutes a source of increasing embarrassment for the sugar interests. Evidence both direct and indirect presented itself in 1905 to show that plantation employers were beginning to fear the power of their Japanese employees, and to placate them by concessions not dictated primarily by regard for efficient service. It is generally predicted that difficulties in plantation management on this score are in future more likely to be accentuated than alleviated.

INVASION OF TRADE AND SKILLED OCCUPATIONS BY ASIATICS.

Embarrassing as it has become in many ways for the planters, the Orientalization of the islands is reacting still more disastrously on the white and the native wage-earners, merchants, and even farmers, than it is on the planters. As has been shown, the adult male Asiatic population employed on the plantations was, in 1900, scarcely 50 per cent of the available workers of those races. The remaining thousands, as shown by the census of occupations, given on page 377, are in active competition with the whites in almost every form of industry for which the islands offer facilities. The first effect of the incoming of the Asiatics was the taking over of unskilled labor of every sort, but the competition has now extended until it has become active in nearly every line of trade and in nearly all the skilled occupations. Most of the competition in the skilled trades comes from the Japanese, and it is insisted everywhere throughout the islands that this competition is growing rapidly, and that the number of Japanese in skilled trades is larger now than it was in 1900.

It is probable that part of the distress attributed by white traders and white artisans to an increase in Japanese competition is in reality the result of the depression that Hawaii is feeling on account of the reaction from the "boom" that marked the early period following annexation. This depression in any event adds to the acuteness of the competition. Increasingly successful competition on the part of the Asiatics, if it corresponded with an increasing demand for labor, would not be so severely felt nor so quickly observed, but with trade and work falling off the competition is more keenly felt and more quickly resented. It is probable that in some lines the Japanese are actually displacing white labor and that in other lines they are merely holding their own, while diminishing business is driving the whites out of the occupation and sending them back to the mainland. In either event the percentage of Japanese in the various trades might be increasing, even if their absolute number were stationary or even diminishing. In some lines of work the Asiatic competition is of very early date, and not only is an increasing control of these trades evident, but new trades are being invaded. The clothing trades are almost entirely in the hands of Asiatics. A few white tailors are engaged in business in Honolulu, and there are several white tailoring firms in the town of Hilo, but all of these, with the exception of one firm, are reported to

employ Chinese or Japanese workmen. There are practically no white wage-earners engaged in making men's garments or boots and shoes, although a few whites find employment independently in repairing and cobbling. The preparation of food and drink affords employment to a number of workers, who are mostly Asiatic. The Chinese take naturally to culinary vocations, often graduating from domestic service into the systematic manufacture of food products. Most of the bakeries, confectionery shops, and hotels and restaurants employ Chinese help, or, as a second choice, Japanese. Practically all domestic servants are Asiatics.

On account of the restricted field of employment, plumbing and tinning are usually carried on in conjunction as a single trade. The Japanese have for some time been steadily invading this field. They are now strong competitors in the plumbing trade, and in some places they have practically monopolized the work of making tinware for sale at plantation stores and elsewhere among the working people. This latter has been a profitable field of industry for the whites, but they are being driven from it rapidly.

The building trades have also been invaded aggressively by Asiatic workmen. The effect of Asiatic competition in this field has attracted particular attention on account of the fact that white mechanics in the various building lines have been steadily giving up the field in Hawaii and forming a procession back to the Coast. When the Territory was annexed a decided building boom occurred at Honolulu, accompanied by a considerable influx of mechanics from the Pacific Coast. It took only a few seasons, however, to supply the city with about all the business structures it was likely to need for a number of years to come. The construction of cottages and small residences has continued since that time, but this is a field of work where the Asiatics compete most successfully with white workers, and in which they are gaining control. As a result of failing employment large numbers of workingmen have left the islands and returned to California, and the population of white mechanics has fallen off considerably. Part of this movement undoubtedly represents merely a reaction from the abnormal condition produced by the excitement attending annexation. But the fact remains that building is still going on in the Territory to a considerable extent, and that Asiatic workmen are successfully competing for the work with white mechanics. The procession of unemployed back to the Coast, therefore, represents to some extent the displacement of whites by Asiatics. Not only are they successful competitors in the construction of cottages and small residences, but they are making their competition strongly felt on larger and more important building work. A white contractor in the islands, who used white and native labor only, reported that he had not had a contract of any importance for nearly a year and a half because he had been ruinously underbid either

by Japanese contractors or by white contractors using Asiatic labor exclusively. He called attention to a large building being constructed upon which about 35 workmen were employed. Although there were white and native workers idle in the town not a single workman was found on the building except Asiatics. It was stated that the masonry, carpentering, plastering, plumbing, and painting—in a word, every detail of the building—was to be done by Asiatic labor.

It was not possible to secure exact and complete statistical data dealing with this displacement of white and native labor in skilled trades by Orientals, but some data were secured indicating the extent to which white mechanics are abandoning the field in Hawaii. The pay rolls for 1881 of one of the largest building firms in Honolulu showed 44 white carpenters and 7 white laborers employed in that year. This is 17 more than all those employed in 1905 by 7 of the largest building establishments in Honolulu. In 1881 the same firm referred to above employed 6 white bricklayers and 1 white laborer, while the 7 establishments reported in 1905 only 3 white bricklayers. Even allowing for the fact that the number of employing builders was smaller in 1881 than in 1905, and that the pay roll of a single firm was, therefore, probably somewhat larger at the earlier date, still an absolute decrease in the employment of white mechanics, or the "displacement" of white by Oriental labor, is clearly indicated. The establishment whose pay roll was taken for 1881 was one of the 7 establishments reported for 1905. The continued falling off in employment since annexation is given in the following table, showing the number employed by 7 firms in 1900-1901, 1902, and 1905:

WHITE MECHANICS (INCLUDING FOREMEN) EMPLOYED IN SEVEN IDENTICAL ESTABLISHMENTS IN THE BUILDING TRADES, HONOLULU, 1900-1901, 1902, AND 1905.

Occupation.	1900-1901.	1902.	1905.
Bricklayers.....	11		3
Carpenters.....	53	32	27
Foremen, bricklayers.....	1		
Foremen, carpenters.....	9	1	3
Foremen, masons, stone.....	2		
Foremen, painters, house.....	2		
Foremen, plasterers.....	1		1
Foremen, plumbers.....	2	2	1
Masons.....	37	2	2
Painters.....	16	14	1
Plasterers.....	9	2	2
Plumbers.....	16	5	4
Total.....	159	58	43

The relatively large number of employees in 1901 is to be ascribed largely to the boom in the building trades at that time. But the falling off in employment between 1902 and 1905 appeared to be fairly representative of the general condition of trade in the latter year as compared with the former, according to the testimony of employers and mechanics in Honolulu.

The only urban occupations not subject to Asiatic competition are the English printing trades and some forms of employment in machinery and metal working. Some forms of furniture are made in Asiatic shops in Honolulu, and Asiatics compete with whites in carriage making and repairing, wheelwright work, and in millwork and joinery. In the passenger carrying or hack business, both in Honolulu and throughout the islands, the Japanese are rapidly gaining complete control. Oriental blacksmiths and horseshoers have shops in Honolulu, and the Japanese compete with boiler makers in making the large tanks used as receivers for the fuel oil now employed for steam making in the islands. Although the language difficulty as yet forms an insurmountable obstacle to the employment of Asiatics in English printing offices, there are several Japanese and Chinese newspaper and job printing establishments in the Territory, catering chiefly to the needs of the Oriental population, that occasionally do English work. The manufacture of sugar-mill machinery, skilled electrical work, brewing, and a fraction of the building trades where the most highly-skilled workmen are employed, are the main branches of industry not invaded by Asiatic working people.

The following views upon Asiatic competition are from memoranda of conversations with both employers and employees in Hawaii. They are fragmentary, but they present some interesting aspects of the problem as seen by those most directly interested.

An American carpenter in Honolulu stated: "When I was at ——— plantation, twenty-five years ago, 50 of us white employees used to sit down together at the boarding-house table, and there was quite a village of white and other citizen employees who were married. There were several hundred white carpenters in Honolulu and the other towns at that time. As late as fifteen years ago about all the carpenters were whites, and received \$4 a day. Now we have a lot of Kanaka and Portuguese helpers at lower wages. In our carpenters' union we have only about 40 members, of whom not a dozen are able to earn the standard union wage."

Another American carpenter said: "The Japanese can compete against us and underfigure us at carpentering, because people will accept work from Japanese that they would not accept from white carpenters."

Several instances of very poor construction, in residences occupied by whites, but built by Japanese labor, were observed in Honolulu. Defective roofs and window joinery, cheap devices in framing, and the use of poor materials were all noticed. The Japanese can underbid whites at frame construction, however, even where they are held strictly down to specifications. One gentleman, intending to erect a frame tenement and store building in Honolulu, allowed a margin of

\$800 to contractors employing only white labor. In spite of this handicap the Asiatics secured the contract.

An American builder, employing all Japanese labor, said: "The cost of construction in Honolulu with Japanese labor is less than it is on the Coast with white labor. I erected 24 houses last year with Japanese workmen. Six of them are now occupied by white carpenters, who are paying \$20 a month rent, where they would have had to pay \$30 or \$40 a month if white labor had been used. The carpenter work and painting of a five-room house, with Japanese labor, costs \$300, which includes making doors and window frames from long stock, cloth covering, papering, and interior painting. The cost of the same house in California would be: Carpenter work, \$300; mill-work, \$185 to \$200; plastering, \$150; painting, \$150. So, in Honolulu, allowing for the fact that one house has cloth and the other plaster under the paper, we can do for \$300 what would cost \$800 or thereabouts in California. My Japanese are steady and reliable, and can make anything. They are now making the furniture for a house I am building."

A white contractor mentioned a case where the bids for erecting a residence in Honolulu stood as follows: "White builder employing only Japanese, \$6,050; Japanese builder, \$6,100; Chinese builder, \$6,150; Japanese builder, \$6,300; white builder employing citizen labor, \$8,000; white builder employing citizen labor, \$8,200."

An American builder in the same city said: "Orientals get all cottage work and small jobbing. We can stand off the Chinese and Japanese when they are left to themselves, but when they are directed by white builders, we can't compete."

The same employer who uses only white labor said: "Some Japanese carpenters do very fair work, and more work than many white carpenters." This does not accord with the statement of a white carpenter already quoted, but there are degrees of skill among the Asiatic mechanics, and they do not turn out uniform work; so that a person is apt to form a general opinion of their craftsmanship from examples that are not representative of their highest skill. In fact, a good deal of the work done by Japanese under white builders is undertaken by "artels" at contract rates; and the builder has no interest in economizing time or allowing short cuts in construction or finishing.

A prominent builder and official of an employers' organization in Honolulu said: "White men have left the country by hundreds on account of the competition of Asiatics."

The Japanese do not always bid intelligently, and they have a system of subletting contracts that often leads to getting the work into the hands of sweated workmen or laborers who do not make a living wage out of the job; all of which is prejudicial to the interest of the person having the work done. On the other hand, the effi- and

skill of the Japanese in Hawaii is probably increasing, and they are becoming better prepared to compete with white men for all grades of work. They are very ambitious to learn. Fathers bring their sons to builders and employing mechanics, soliciting instruction for them, and offering to let them work for nothing in return for what they can learn. Many large employers are decidedly opposed to having a Japanese on their force for the very reason that they realize that they are training up future competitors in their business. "I won't teach men to cut my throat," was a typical expression from a large employer, when asked why he had no Oriental labor on his pay roll. A plumber said: "When I was doing work on the Sanitary Laundry, a Jap offered me \$50 to teach him to wipe a joint. Some white plumbers who came down here in 1900 and 1901 made a good deal of money teaching their trade to Japs." A mechanic in Honolulu said: "This country is really a sort of kindergarten for Japanese mechanics." This remark was a very apt one, and exactly describes the opportunity which plantation life, with its large employment of semiskilled workers and mechanics' helpers, affords for the Asiatic workman. An American mechanic who had been employed on a number of plantations said: "The white mechanics on the plantations have an easy job. I never did a real day's work myself when I was out on the plantations. We get used to sitting around and seeing Japs work, and so get lazy. A good many men get too lazy even to lay out work, and leave it to the Japs. So by and by they find they have trained up mechanics just as good as themselves."

The Japanese in Hawaii are alert to seize every opportunity to advance themselves in the knowledge of the skilled trades and mechanical industries. Both on and off the plantations wherever a Japanese is given a position as assistant to a skilled worker or in a mechanical position he becomes a marvel of industry, disregarding hours, working early and late, and displaying a peculiarly farsighted willingness to be imposed upon and do the work which properly belongs to the workman he is assisting.

The competition between Asiatics and white and native workingmen has been felt in some degree ever since the Asiatics first began to come into the islands, but not only is this competition now felt through all grades of labor, but it has also spread out into commercial lines. White merchants are now complaining of the effect of Oriental competition as vigorously as are the white mechanics and white laborers. In the end the competition will be more disastrous to the merchant than to the mechanic. The mechanic can gather up his tools—his working capital—and return to the mainland, suffering, it is true, from the time lost and from the fact of having practically to start anew *where once he may have had a patronage established, and embittered by the feeling that in an American territory there was no room for*

him, an American citizen, on account of the economic dominance of aliens. But the white merchant can not so easily withdraw from trade without such a sacrifice of his stock as may represent ruin to his small fortune. Many small merchants are now feeling the effects both of the depression and of encroaching Asiatic competition, and are doggedly carrying on a struggle which they believe to be hopeless, but still unable to bring themselves to the point of sacrificing their stock and withdrawing from business. A number of merchants were interviewed, outside of Honolulu, who felt that they had held on too long already and had allowed to pass the favorable moment for retirement.

The Territory licenses several kinds of business, and the license statistics afford some measure of Asiatic mercantile activity in Hawaii. But these figures do not represent the exact amount of competition encountered by citizen merchants, hackmen, and other license holders. In some cases, like hotels and lodging houses, there is no real competition between the two races for the same trade; in other lines, as in steam laundries, there is competition not given in the following table:

NATIONALITY OF LICENSE HOLDERS.

Kind of business.	1885.		1889.		1898.			1899.			1904.		
	Chi- nese.	All oth- ers.	Chi- nese.	All oth- ers.	Chi- nese.	Japa- nese.	All oth- ers.	Chi- nese.	Japa- nese.	All oth- ers.	Chi- nese.	Japa- nese.	All oth- ers.
Auction							12			10			7
Banking						2	6		2	7		3	5
Billiards					2	3	10		1	9		5	9
Boat					3		64		2	36			21
Boatmen						2	96		1	53			20
Bowling alley												1	2
Brewing, malt													1
Butcher, beef	12	60	20	77	20	1	50	38	3	42	29	9	58
Butcher, pork	35	9	46	2	68	3	14	60	2	14	78	3	11
Dray	7	26	10	45	24	23	104	33	52	157	39	45	149
Driver	40	352	56	457	95	72	270	115	82	323	112	322	319
Hack	29	115	86	93	75	63	120	83	57	148	58	218	151
Hotel and restaurant					169	34	30	187	56	89	168	86	38
Livery (a)	31	104	13	21			6			13			11
Lodging house					57	7	28	90	38	54	74	48	62
Merchandise	391	301	405	272	509	126	276	593	160	360	(b)	(b)	(b)
Milk					1	16	89	2	18	98	1	45	106
Notary public							91			105	3	1	185
Peddling cake	24		29		26	10		29	7		19	37	2
Poison, drug							5			6		5	c 4
Salmon					11		25	12		29	145	87	122
Steam laundry							1			1			1
Spirit, wholesale	5	6	4	3	3	1	4	3	1	7	3	1	4
Spirit dealer						1	7		1	8		7	25
Spirit, retail					2		19		1	23	1		33
Tobacco and cigars					401	87	155	537	119	163	556	310	228
Wine and beer (d)					2	1	9	2		17	2	8	53
Total	574	973	619	970	1,468	452	1,491	1,789	600	1,722	1,238	1,241	1,629

^a In 1885 and 1889 "Horse hiring."

^b Merchandise license abolished.

^c Six establishments (counted in total); two establishments had refused to take out licenses in order to test validity of law.

^d Including "Malt liquor, retail" licenses issued in 1904.

^e See note c.

This table records number of establishments rather than volume of business or capital invested. For instance, there are a half dozen *Caucasian firms in Honolulu* the value of whose stock aggregates more

than all the stock carried by Japanese stores in the Territory. Some of the Oriental establishments are really distributing agencies for central firms owned by white merchants. The number of Caucasian and Hawaiian license holders grew very rapidly between 1898 and 1899. The absolute decrease in their number in 1904 is accounted for by the abolition of the merchandise license. In 1899 the number of licenses of the latter kind issued to Caucasians and Hawaiians was equal to 25.2 per cent of all other licenses issued. If this proportion held good in 1904, the whole number of license holders would have been 2,029, upon the 1899 basis. The number of Chinese license holders has fallen off somewhat for the same reason, though estimated upon the 1899 basis there has been a slight increase, despite the decrease in the Chinese population of the Territory. The number of Japanese license holders shows a remarkable growth, quite out of proportion to the increase in numbers of residents of that nationality, which the immigration statistics show to have been very slight since 1900. However, this increase is due to exceptional conditions not likely to be permanent. Prior to 1900 a large number of the Japanese in Hawaii were contract laborers, who had no opportunity to engage in outside occupations. This was not equally true of the Chinese, who had been established in the Territory for a longer period. With the change in the condition of the working classes and the character of Japanese immigration following annexation, there has been a rapid expansion of miscellaneous activities and petty trading among them. Unless there is some future increase in the Japanese population not predicted in present immigration statistics, the field of employment and business opportunity represented in the table does not promise to expand, or to afford a chance for the successful establishment of many new enterprises.

Certain licensed occupations, like driving, draying, and hack driving, are subject to Oriental competition, though even in these cases each nationality deals largely with persons of its own race. Retail stores conducted by Orientals do a good deal of business with Hawaiians, Portuguese, and the lower-paid classes of white workers. White mechanics receiving good wages, and men who inveighed violently against the Oriental in Hawaii, were observed on some occasions patronizing these stores. In most country districts the retail trade is almost wholly in the hands of Chinese merchants. But it must be remembered always—and the fact should be considered in reviewing the table given above—that many persons rated as “Chinese” are American citizens, and some of them have Hawaiian blood in their veins. In Hawaiian statistics the race classification is often made upon a basis of proper names, and Chinese names are now borne by many natives of the islands having but a fraction of Asiatic blood. The Chinese, or those classed as Chinese, also control the food-purveying

business in many sections, catering to both whites and Orientals. The Japanese retail dealers, except those selling curios and specialties imported from Japan for the white trade, find their custom almost entirely among people of their own nationality.

It was the general testimony of both white merchants and the educated Japanese residents of Honolulu that the better class Japanese patronized Caucasian stores. This is due to the fact that the white establishments import a rather better line of goods, have a greater variety, and in such matters as clothing and furnishings keep up with the styles more closely than their Oriental rivals. A leading drug merchant in Honolulu said: "The better class Japanese trade generally with white firms. The responsible Japanese physicians patronize us, but those to whom we don't care to give credit go to stores kept by people of their own nationality. The coolies, when they have a small prescription to be filled, go to stores kept by their own people. These Japanese drug stores buy some of their goods from us and import some from Japan. Japanese goods are put up just like American goods, and their druggists employ the same remedies and chemicals as ourselves. The Chinese, however, have their own pharmacopœia." It is significant, however, of the growing aggressiveness of the Japanese competition that at the time of the investigation in the islands preparatory to this report a Japanese druggist was preparing to open several stores in the white sections of Honolulu with the avowed purpose of securing white patronage.

Oriental competition in mercantile lines is undoubtedly growing keener and more pressing, and the white merchants of Hawaii are growing more concerned as to the possible outcome for them. They have recently very emphatically voiced their growing dissatisfaction with present and prospective conditions in the islands. Even assuming that the white residents continue to trade with merchants of their own race, this does not relieve the situation if the white population is stationary or decreasing while the Oriental population is increasing.

The Honolulu Merchants' Association, in a recent correspondence with the Planters' Association, thus expressed their views upon the immigration and competition of Asiatics:

This country has been inundated with an influx of Asiatic population that threatens to undermine its political security, so far as the ascendancy and control of the white race is concerned. For the purpose of obtaining cheap labor there have been introduced here twice as many Asiatic laborers as have been necessary for working the plantations, and this has resulted disastrously to all but immediate sugar interests. The surplus labor, which numbers in the neighborhood of 50,000, is engaged in professional, mechanical, and mercantile pursuits that in a Territory of the United States or in any country legitimately belongs to its citizens.

The predominance of Asiatics in the population of Hawaii has thus come to be regarded not only as a peril to immediate trade interests, through the competition already existing, but as creating a grave menace to business security for the future.

Industries conducted on a small scale afford the best opening for the Japanese and the Chinese. The corporate organization, the large capital, and the extensive scope of sugar planting have kept its control wholly in the hands of Caucasians. The same rule holds generally true in mercantile pursuits. Oriental competition is soonest felt in those pursuits that are conducted on a small scale. Petty traffic goes to the Asiatic. The wholesaler and the large department store owner do not as yet seriously feel his presence. In conversing with Honolulu merchants upon the question of Oriental competition it was noticeable that the hostility of the speaker was usually in about inverse ratio to the extent of his business. Thus while the Caucasian working class has been reduced to a minimum, even in skilled occupations, and has lost ground in administrative positions; and while the smaller merchants and traders are struggling doggedly in a doubtful effort to maintain their own, the Caucasian employers who employ labor on a large scale have maintained their position almost unimpaired, owing to strong corporate organization and an exceedingly close community of interest—a community of interest whose solidarity has been strengthened by interwoven family ties and by the close association which long years of residence in a small and isolated community produce. It does not necessarily follow that this condition will be permanent; the growing Asiatic mercantile community supported by the patronage and cooperation of the greater part of the producing population may ultimately develop an employing class of considerable wealth and influence, and may reproduce in this island Territory of the United States conditions now prevailing in the Straits Settlements, where Chinese merchants are commercially dominant.

It is not easy to give an adequate idea of the resentment and the bitterness felt by the white mechanic and the white merchant who see themselves being steadily forced to the wall, and even driven out of the Territory, by Asiatic competition. They feel that they are being defeated in the struggle, not because of superior mechanical skill or superior business instinct on the part of their successful competitors, but because of a lower standard of living, in the face of which they are helpless. They feel, furthermore, that the white citizen who goes into new American territory to cast his lot with a new community and to join in its upbuilding on American lines is entitled, if not to favored treatment, at least to protection against the kind of competition that the Asiatic alien represents.

In an interview one evening with a white plumber and tinner and with a white tailor, they both spoke with bitterness of how their trades were steadily being taken from them. The plumber and tinner said that he was still holding his own to some extent in plumbing, but that this branch alone could not maintain him, and that the tinning work—the manufacture of small tinware—had been taken from him entirely by Japanese. He said that he had let go most of his white workers and had little trade left. That day had been an idle one in his shop, but, although it was then past 10 o'clock in the evening, Japanese tin-smiths with their helpers were found still working busily trying to fill orders, and early in the morning nearly every stage leaving that village was found carrying bags of tinware from these same Japanese shops to white plantation stores in the island. The tailor told a similar story. He had manfully made his struggle and refused to employ Asiatic help, but he said his business was a dwindling one; that many of the well-to-do whites patronized Asiatic or white employers of Asiatic labor, and that his only custom was from a few whites who were trying to maintain white artisans, and who patronized him even though they paid more for his goods. The day had been a dull one for him, but in the street below at that late hour were several Asiatic tailoring shops in which the working force was still busy making clothing.

There was a fine sense of patriotism that rose above the consideration of profits shown in more than one case on the part of whites who had come from the mainland about the time of annexation. One large contractor, who used only white and Hawaiian labor and who was steadily losing ground before the double competition of Japanese bidders and white contractors using Japanese labor, said that he would continue the struggle a little longer, but that he would face ruin and go back to the mainland to start over again rather than succeed in Hawaii by abandoning the use of citizen labor and employing the cheaper Asiatic. He was unwilling, he said, to contribute to the success of the Asiatic alien in wresting from the citizen his birthright.

In discussing the question of Asiatic competition, attention was called to the aid that the Federal Government might render in the struggle of the white and native population. Large sums of money will probably be needed in the near future for improving the harbors at Honolulu and Hilo and at the naval station in Pearl Harbor, while considerable sums will be expended upon fortifications, military posts, and other defenses. A number of public buildings will probably be erected in time, and already some are under contract. There is considerable current employment at the quarantine and immigration stations and upon the naval and military reservations and upon the docks where the transports are coaled. Those who presented this matter were not alone laboring men, but contractors employing American

labor and merchants who looked for their custom to the white population of the islands. They argued with considerable reason that the Government should, as far as possible, employ only citizens or persons eligible to become citizens upon Federal works—first, because the Federal Government should be especially interested in maintaining and strengthening in Hawaii a community politically competent and as nearly as possible homogeneous in race and tradition with the citizens of the mainland; second, because the strategic value of the islands is lessened by having its military and harbor works constructed by aliens and dependent upon an alien labor supply for maintenance either in time of war or of peace; third, because the market for American goods in Hawaii is decreased in the same proportion that Oriental labor is employed in preference to white labor. It was stated by reputable contractors in Honolulu that all of the millwork on the new immigration station was done by a Chinese firm and that Orientals were employed otherwise in its construction. Several of the improvements about the naval station were done entirely by Asiatics. Laborers of that race also coal the Army transports and some ten of them are employed as boatmen and fumigators at the quarantine station. Attention was called to stage lines carrying the United States mail that utilize the services of Asiatics as drivers. The field of employment of which citizen labor is deprived in these instances may seem insignificant and the matter a petty and trivial one from a national point of view, but in a small and isolated community where there is a desperate and pathetic struggle of a few thousand Caucasian working people to maintain their standards and to build up a typical American democracy in the face of almost overwhelming Asiatic competition, the disheartening effect of an apparently unsympathetic attitude on the part of the Federal Government is a matter worthy of serious consideration.

ASIATICS IN SMALL FARMING.

The invasion of the mechanical trades and mercantile pursuits by the Asiatics and the consequent displacement of whites finds its counterpart in the domain of small farming. Throughout the islands many experiments in small farming undertaken by whites have failed and have been abandoned by the farmers. On the other hand, Chinese and Japanese are steadily taking up small patches of land and are succeeding in their farming undertakings. On the island of Maui an effort was made to establish a white community of small farmers on the uplands. This community was visited during the preparation of this report, and it was found that where whites had failed their places had been taken by Asiatics. One unusually intelligent Japanese, an educated professional man, whose ill health had led him to take up farming, expressed himself that the effort must fail on the part of the *whites*, because the returns were too small to support white families

in the standard of comfort that they demanded, but that the Asiatics, with their cheaper standard of living, could maintain themselves satisfactorily on the holdings given up by the whites, and that in the end the experiment must inevitably develop a farming community almost exclusively Oriental. The same thing has been already strikingly illustrated in the coffee industry. At one time this was a promising industry, and coffee trees were set out everywhere in the parts of the island of Hawaii where conditions were favorable. The industry practically failed on account of the low price of coffee, and at the present time many acres of what were once flourishing coffee farms have been abandoned and given over to weeds. A few successful coffee farms remain, but, with probably one marked exception, they are Japanese successes. The brief history of the coffee industry in Hawaii is significant. Coffee planting was first promoted there as a white man's industry. In one sense it is so, since there is no work necessary in connection with raising coffee that a white man can not perform without difficulty in Hawaii, especially at the altitudes where the trees flourish best; but so far as actual conditions existing in Hawaii at the present time are concerned, coffee is cultivated with Asiatic labor to the same extent as sugar cane. On none of the larger and really successful coffee plantations are whites employed as field hands in actual cultivation. Even the picking is now done for the most part by Asiatics; and, so far as actual control is concerned, the Japanese have a securer hold upon coffee planting than they have upon cane cultivation. Although the plantation system, involving large investments of capital under a central administration, corporate organization, and specialized industrial methods applied to agriculture, is responsible largely for the present dominance of Asiatic labor in Hawaii, the same system sets more or less of a limit to the extent of alien control. So far, at least, the employing side of the industry has remained intact from Oriental influence; but small farming, on the other hand, is an occupation in which the Asiatic is apt to displace the employer as well as the laborer. This is what happened at the outset in the rice industry, which fell entirely into the hands of the Chinese, and it appears to be what is occurring at the present time in coffee planting.

Some of the largest producers have leased all their lands, and in one instance even the coffee mill, to Japanese contracting companies. These companies take over the plantation and plant, cultivate, harvest, and prepare for market the crop, selling to the owner and former manager, who thus becomes merely a merchant, interested in the exchange but not directly concerned in the production of coffee. Another planter has an arrangement by which Japanese laborers plant, cultivate, and pick coffee upon his land, delivering it to him at a fixed price, which is said to average about 88 cents a hundredweight of berry. *These contracts run for ten years, and at the end of that*

time the planter may resume the ground and acquire ownership of the trees.

The banana industry was also urged as a profitable field for small homesteaders, and the cultivation of the fruit was taken up chiefly by Portuguese and Japanese homesteaders, but this industry, equally with other minor rural industries, appears to be falling into the hands of Asiatics. Should the Japanese in California develop the same commercial instincts and perfect the methods of the Chinese merchants in Australia, and enter the retail fruit business upon the Pacific Coast, patronizing their own countrymen in Hawaii, they might establish a pretty effective monopoly of this form of fruit exchange in California and the Northwest, at the same time placing this industry upon a secure basis within their own control in Hawaii. It seems to be the general opinion that, with equal facilities for marketing, the Hawaiian growers can compete upon more than equal terms with the fruit companies of the mainland.

As in the case of coffee, the cultivation of pineapples is beginning to fall into the hands of Japanese companies, and one of the larger tracts in the Wahiawa colony, which has made a specialty of pineapple raising, is now leased to a Japanese planter. The pineapple canneries are owned as yet by the whites.

The census figures for 1900 showed over 1,200 Asiatics engaged in small farming in Hawaii, and there is every evidence that their numbers have increased since then. The breaking up of the land into very small holdings has given opportunity to the Asiatic, but has not succeeded in building up a white farming community.

The most recent developments in this line seem to indicate that the Asiatics are going into agriculture on a still larger scale. Since the report for 1902 was written, a Japanese cultivation company of some 55 members has taken a five-year contract to raise all the cane upon one of the smaller plantations. They thus gain control of all field operations, including administration, subject to the general supervision of the plantation manager. If this system should extend—and it has proved more profitable than the old in the case in question—the control of cane growing would be as fully in their hands as is coffee raising. In a Japanese paper published in Honolulu, under date of January 8 of the present year (1906), it is reported that a company has been organized in Tokyo for the purpose of leasing lands belonging to one of the large plantations and cultivating cane to be sold to the mill. The company has a capital of \$250,000, and is reported to have secured 1,600 acres of land from this plantation, under a twenty-years' lease, and to have begun to clear it. The announcement continues: "The Japanese concern will furnish their own labor, build their own houses, furnish their own implements of agriculture, food, etc."

Thus, in mercantile lines, in the field of hand labor, and in small farming alike, the experience is the same. Between depression and Asiatic competition the whites are being driven out, and the Asiatics are succeeding. It is a struggle for survival, with the white element slowly and steadily losing ground.

EFFORTS TO CONTROL PLANTATION LABOR.

The overwhelming influx of Orientals into Hawaii has created a situation menacing alike to the interests of the planter, the small farmer, the citizen merchant, and the citizen artisan. All these groups now agree as to the extent and the seriousness of the evil, but their grievances are not identical, and the remedies that would be welcomed by each class are different.

The problem of the planter is to keep a sufficient labor supply, to insure stability in his working force, and at the same time find relief from administrative embarrassments due to the present labor monopoly of the Japanese. But until some method of escape from this last predicament can be devised, it is essential to the prosperity of the plantation interests to retain the Japanese laborers in the islands in order to maintain an adequate labor supply. Efforts to check the emigration of Japanese to the mainland have been made by increasing wages, giving better living conditions, and in general endeavoring to give better treatment to the Japanese on the plantations. In May of the present year the wages of all field hands were increased \$2 per month, an increase on the whole of something over 10 per cent.

The planters had the support of the Territorial government in their efforts to stop the emigration of Japanese that threatened to deplete their labor force. The following act licensing emigrant agents was passed by the Territorial legislature, in the hope of lessening the activities of those stimulating emigration to the coast: (^a)

ACT No. 57.—*Emigrant agents.*

SECTION 1. The annual fee for a license for each emigrant agent, or employer or employee of such agent, doing business in this Territory, shall be five hundred dollars.

SEC. 2. The said license shall be issued in the same manner as is provided for the issuance of other licenses by chapter 102 of the Revised Laws of Hawaii, 1905.

SEC. 3. Any person who shall engage in business as an emigrant agent without first obtaining a license, issued in conformity with the provisions hereof, and of said chapter 102, or who shall violate or fail to observe any of the provisions hereof, or of said chapter, shall be guilty of a misdemeanor, and upon conviction shall be fined in a sum not less than the annual fee, and not more than twice the annual fee herein provided for the carrying on of such business.

SEC. 4. The emigrant agent, as used in this act, shall be held to mean a person engaged in hiring laborers in the Territory of Hawaii, to be employed beyond the limits of the Territory, or engaged in inducing laborers in the Territory of Hawaii to go beyond the limits of the Territory of Hawaii for the purpose of being employed.

Approved this 25th day of April, A. D. 1905.

^a See advertisements given on pages 379 and 380.

Further efforts, both in the direction of lessening the departures of Japanese to the Coast and of tempering their growing aggressiveness, were made through an organization established in the latter part of the year 1903 and known as the Central Japanese League.^(a) The Japanese consul-general was made president of the league and thus stated its principal purposes:

1. In conjunction with the representatives of the Japanese Government to prevent the emigration of the Japanese to the States.

2. To instill into the laborers an attachment to the localities where they are working.

3. To promote a feeling of mutual obligation and regard between employer and employee.

4. To secure a speedy adjustment of any difference that may arise between the members of the league and outsiders and among the members themselves.

5. To give advice in all cases when called upon by members of the league, and render financial assistance to such members as deserve it.

6. To establish and maintain Japanese schools wherever needed.

The convention assembled to organize the league discussed the question of Japanese emigration, and appointed a committee, consisting of 15 delegates, to suggest and devise ways and means of preventing the Japanese exodus from the islands. The president of the league gives the report of the committee as follows: "That they will request the Imperial Japanese consul-general to issue advice to the Japanese laborers, setting forth in plain language the many advantages of their remaining in the islands; that they will take all necessary measures to induce the Japanese boarding-house keepers and others to refrain from giving assistance to those intending to sail for the American coast; that the principal officials of the branches of the league be instructed to use their influence over the laborers in order to prevent the emigration; and that they will make some arrangement with the local steamship companies whereby to diminish the Japanese laborers going to the States."

The assistance of the Japanese consul-general was also brought directly into play to stem the migration of his fellow-countrymen to the Coast and at the same time to temper their aggressiveness. In May and June a notice^(b) from the Japanese consul-general urging his countrymen not to leave Hawaii for the mainland was found conspicuously posted throughout the islands, in both English and Japanese.

^a See also page 485.

^b NOTICE.—Despite the suspension by the Japanese Government of the emigration of Japanese laborers to the United States, * * * there is a large number going to California or other Pacific States immediately after their arrival in Honolulu, thus deceiving the home authorities and being false to their declaration to come to and to remain in Hawaii.

Although, as a matter of course, it is natural for the laborers to be inclined to go to places where they can get higher wages, yet they ought to have great considera-

The Central League was organized in the latter part of the year 1903, and whatever efforts it made to restrain the Japanese from leaving Hawaii for the Coast were apparently unsuccessful, since departures on an increasing scale continued through the year 1904 and the first half of 1905. Neither did the effort of the consul-general through his circular of April, 1905, nor the increase in wages granted on May 1, operate immediately to check the departure of Japanese. The following figures show Japanese departures for the Coast from May, 1905, to the close of the year:

May.....	1,109
June.....	856
July.....	642
August.....	628
September.....	409
October.....	383
November.....	233
December.....	211

The number leaving in May was greater than that for any month previous to April, 1905. The months of April and May mark the high tide of this migration. The figures show a decided diminution in the travel of Japanese from Hawaii to the Coast since May, 1905, but it is too early to say whether this is a temporary cessation due to labor demand ceasing after summer contracts let in California, or whether it marks the end of the migration that has been going on increasingly since 1902. However, it is evident that the contractors on the mainland are not going to leave the planters in peaceful possession of their labor force. A notice appearing in a Washington paper under date of January 23, 1906, states that a special steamer has been chartered for a period of three months to make trips to Honolulu "for the purpose of bringing into this country Japanese laborers." The notice further adds, "The fact that Hawaii is American territory will enable contractors to bring in alien laborers without infringing the immigration law against contract laborers."

tion for the policy of their own Government. It is, probably, no exaggeration to affirm that most of those who emigrate to the mainland are beguiled by the honied words of interested and irresponsible employment agencies.

In view of the present state of affairs, His Imperial Majesty's consulate-general has held conferences with the Hawaiian Planters' Association with the result that it has finally come to the conclusion to increase wages of the Japanese laborers on the plantations through the Hawaiian Islands from the 1st of May 1905.

I hereby request with all the earnestness in my power that the Japanese laborers may be diligent and faithful to their various lines of work on the plantations and not to act contrary to the policy of the Japanese Government by going to the mainland, thus violating their tacit promise to the home Government and violating good faith to their employers.

April 20, 1905.

H. I. M. JAPANESE CONSULATE-GENERAL, Honolulu, Hawaii.

Another function of the league was indicated by its president, at the time of its organization, as follows: "The officials of the league will act as a conciliation board in all matters of dispute between laborers and their employers, so that their acts may not be in conflict with the laws and regulations of the Hawaiian Islands, and in any conflict with the legitimate interests of their employers." Some six months after its organization the league endeavored to emphasize this conciliation feature, and a letter sent under date of June 2, by the president of the league to each of the branches reads, in part, as follows:

HONOLULU, HAWAII, *June 2, 1904.*

To the ——— Branch of the Central Japanese League ———.

GENTLEMEN: We view with profound regret the late unhappy occurrences akin in nature and appearance to "strikes" among the members of the Central Japanese League on some of the plantations. This is especially to be regretted at the very moment when the organization of the league has barely been perfected, and stands on the threshold of its new life, ready for the execution and the improvement of its high moral purpose. We beg to call your attention to the fact that such occurrences can not fail to injure the reputation of the organization in the eyes of the public, particularly of the employers of the Japanese laborers, with whom we earnestly wish to maintain just and cordial relations.

* * * * *

Strikes and all other violent acts, especially for trivial causes, are, in their nature, like the doings of unruly children or like the acts of barbarians, rather than of civilized men. We are absolutely opposed to them.

* * * * *

With the foregoing spirit in view, the board of officers of the Central Japanese League, assembled on the 2d of June, 1904, made the following declarations in respect of strikes and measures of such nature, which we herewith transmit to you with the view of providing a guide to your conduct and ours.

First. "In case there should arise any difficulty or misunderstanding between the employers and the employees, the branch having jurisdiction over the district, shall ascertain the grievances of the laborers and pass upon the reasonableness thereof, and to eliminate therefrom all and every frivolous, unreasonable and imaginary grievance; and to acquaint the employers with those grievances only of a reasonable and substantial nature; with the suggestion for the peaceful settlement thereof; and to endeavor with all the means at its disposal to remove the causes of the difficulties and to establish cordial relations between them.

"Should it find the matter too difficult for the branch to settle, after all the means at its disposal have been exhausted, it shall submit to the central office of the Central Japanese League a categorical statement of all the grievances which, in its sound judgment it shall deem reasonable, with the concise statements of facts explaining and supporting them.

Second. "Confident that the measures above suggested will prove equal to all emergencies and settle all troubles that may arise, we

hereby declare that there is no occasion for the recurrence of strikes or of any other acts of a like nature.

Third. "Should laborers strike or resort to anything of a like nature, without first invoking the assistance of the measures herein suggested, the Central Japanese League shall absolutely refuse to lend any assistance to them."

Yours, respectfully,

Central Japanese League.

The efforts of the league to temper the "aggressiveness" of the Japanese on the plantations seems to have been as unsuccessful as were its efforts to check emigration. The abolition of penal contracts resulted in a good deal of friction during the process of readjustment of relations between employers and employees, and there were accordingly 18 strikes reported on the sugar plantations after June 14, in 1900. Only two strikes were reported during the years 1901 and 1902. Two strikes were reported during the year 1903. The league was organized during the last two months of 1903, and in spite of its design to bring about harmonious relations between employers and employees, 5 strikes were reported in 1904 and 5 during the first five months of 1905. In May, 1905, a Japanese paper of Honolulu deplored the fact that the Central League had "departed from its original path and become a power for evil," and that it had "become an organization in which actual trouble makers are in power."

The efforts of the Japanese consul-general to lessen the friction between the planters and their Japanese plantation workers have likewise met with only partial success. The consul-general was made the object of bitter and persistent attack by the Japanese paper in Honolulu, and the plantation laborers in many cases showed a disposition to act with unexpected freedom and independence. They very flatly proclaimed their right to do as they pleased in this country and resented what they considered the interference of the representative of their own Government. In one instance an attaché of the Japanese consulate, in addressing a meeting of strikers and urging them to return to work, had a narrow escape from rough handling by the strikers. The official assistance thus rendered in the attempt to relieve the planters from administrative embarrassments has not been more successful than the efforts to prevent the plantation laborers from leaving the islands.

In order to replace their losses in the cane fields, the planters have recruited their forces by means of further immigration from the Orient, and at the same time an effort was made to break up the solidarity of the Japanese by stimulating Korean immigration. The success of this effort is seen by reference to page 371, where the table of immigrants shows the arrival of 7,394 Koreans from July 1, 1900, to December 31, 1905; and the table on page 368, giving plantation

labor force, shows 4,683 Koreans in the employ of the plantations in April and May, 1905. If the immigration of Koreans continues at the same rate, the planters will have succeeded before long to a considerable extent in breaking up the solidarity of the plantation-labor force and the consequent economic control now held by the Japanese on the plantations.

But all these efforts to restrict Japanese departures and to temper Japanese aggressiveness have been mere palliatives and temporary expedients in the minds of the planters. Their great remedy, the one which would at one stroke solve their labor problem in its various aspects, consists in such modification of the Chinese-exclusion law as would permit the admission of Chinese coolies to the Territory of Hawaii. It is urged by the planters that the bringing in of Chinese would at once break up the race solidarity of the present plantation-labor supply, destroy the monopoly now held by the Japanese, temper their aggressiveness, and very much simplify the problem of plantation discipline and plantation management. The Chinese, it was everywhere asserted by the planters, are far more reliable and more docile laborers than the Japanese, and their exclusion from the mainland would give a stability to the labor of that nationality which would be of great importance from the planters' viewpoint. It was further insisted that the Chinese laborers were less ambitious and less aggressive than the Japanese, and that they would not prove the same menace to the other interests in the islands. On most of the plantations the managers were insistent on the necessity for the admission of Chinese and eloquent in their encomiums of the characteristics of the coolie of that race as a laborer.

Undoubtedly the Chinese are cheaper labor than the Japanese. They are more docile and lend themselves with less friction to the older methods of plantation administration. They make less demand for housing accommodation, because they herd together, while the Japanese prefer private rooms. Probably a plantation manager could sum up his view of the subject by the statement that the Chinese are cheaper, more reliable, and in every way less troublesome than other workers.

EFFORTS OF MERCHANTS AND MECHANICS TO RESIST ORIENTAL COMPETITION.

Like the planters, the merchants and mechanics of the Territory have been invoking every means to protect themselves against the aggressiveness of the Japanese. Efforts have been made through the machinery of the Government to secure protection for white and native laborers against the competition of Orientals. In 1903 a law was passed providing that "no person shall be employed as a mechanic

or a laborer upon any public work carried on by this Territory, or by any political subdivision thereof, whether the work is done by contract or otherwise, unless such person is a citizen of the United States, or eligible to become a citizen: * * * ” This leaves the field open to all whites and natives, excluding practically only the Orientals.^(a)

Numerous efforts at further legislation intended directly or indirectly to favor white and citizen labor in the contest with the Orientals were evident during the legislative session of 1905. Acts providing for stringent tenement house and building regulations were introduced. These looked primarily to the general welfare, but they nevertheless received the main part of their support in Hawaii from those whose first object was to limit the field of employment of unskilled Orientals and incompetent Asiatic contractors in the building trades, and to compel conditions of living in Honolulu and other towns that would make the price of house accommodations for the Japanese and Chinese approach the cost of such homes as are demanded by white workmen.

Efforts at still more drastic legislation were made in a bill introduced in the Territorial house of representatives in April, 1905, and entitled “An act to regulate the following trades, namely, blacksmith, carpenter, electrician, engineer, harness maker and saddler, machinist, mason, painter, plumber, and tailor, and to license persons to carry on the same so as to secure greater efficiency in said trades and protect the public from imposition by reason of the inefficiency of persons engaged therein.” The act created a board of 10 citizen journeymen to act as a board of examiners for applicants for license in each of the above-named trades. The board was authorized to prescribe the regulations for carrying on each of the trades, and an annual license fee was fixed at \$2 for a journeyman and \$1 for an apprentice, with the further provision that “if the applicant be an alien ineligible for citizenship the license fee for a journeyman shall be \$20 and for an apprentice \$10.” This bill failed of passage.

Another bill introduced on the same day provided a double license fee, and in some cases more than double the regular license fee, for persons ineligible to citizenship engaged in any of the following pursuits: Sale of methylated spirits and alcohol, conducting billiard hall or bowling alley, plying boats for hire, keeping livery stable, sale of poisonous drugs, acting as boatman, sale of tobacco and cigarettes, for freight vehicles, and for driving licensed vehicles. This bill also failed.

^a Under date of August 7, 1905, a Japanese paper of Honolulu published a signed opinion by the United States district attorney that this act is unconstitutional, being in contravention both of the Constitution of the United States and of the treaty of 1895 between the United States and Japan.

A bill introduced earlier in the same session forbade the purchase of material and supplies by the government of the Territory from any person not a citizen of the United States. This bill also failed of passage.

These bills, although they were not enacted into law, indicate strongly one phase of the feeling in the Territory on the subject of Asiatic competition.

Another method of resistance to the Asiatic competition is represented by the Federation of Allied Trades of the town of Hilo.^(a) Hilo is the next largest town in the islands after Honolulu, and is the port for the large island of Hawaii. This Federation of Trades had a membership of 594. Its membership was restricted to whites and natives, and although it was called a "Federation of Allied Trades," it embraced not only every class of skilled and unskilled laborers, but also clerks, plantation overseers, policemen, farmers, farm hands, independent barbers, and a few small merchants. The federation was not a trades organization as it is understood in this country. It was an association whose main purpose was to resist the encroachments of Orientals in any form of labor or mercantile pursuit, and its method was to urge discriminatory legislation and also to withhold the patronage of its members from those employing Asiatics or trading with Asiatics or with the employers of Asiatics. The organization, however, did not maintain itself, and met with little practical success in its endeavors to check Asiatic competition.

All of these efforts at discriminatory legislation and at protective organizations were regarded by merchants and artisans as only temporary and palliative, and they, like the planters, were anxious for some remedy which might prove permanent and effectual. In the minds of the merchants and artisans alike, the best remedy for the evils that the Orientalization of the Territory had brought upon them was the stimulation of white immigration, the development of diversified agriculture, and the supplanting of the Asiatic by the building up of a community of small farmers similar to what we know on the mainland.

PROPOSED ADMISSION OF CHINESE AS PLANTATION LABORERS.

It was everywhere admitted that a white population, with a higher standard of living and a consequent greater consuming power, was desirable alike from the viewpoint of the merchant, the mechanic, and even the unskilled laborer, and offered the only promise of a large citizenship suitable for the development of a self-governing American commonwealth. But until recently such a remedy for the ills of the

^a See page 488.

merchants and workingmen has been spoken of by them only as an ideal condition to which they considered it impracticable for Hawaii ever to attain. Sugar is the one source of the wealth and strength of the Territory, and not only nothing is considered practicable which appears to strike a blow at the prosperity of the sugar industry, but it seems also to have been pretty generally conceded that the present system of sugar production—the large corporate plantation—is to be accepted as inevitable. Assuming the present system in the sugar industry as final, some form of cheap Oriental labor is the necessary consequence, and many in Hawaii outside the plantation interests seem to have conceded that a modification of the Chinese-exclusion act and the admission of Chinese coolies to Hawaii is possibly the best practical means of escape from the present evils of Japanese competition and economic domination.

In discussing the admission of Chinese as an offset to the Japanese, many white merchants, and even some white mechanics, agreed with the planters as to the docility and the lack of aggressiveness of the Chinese coolie as compared with the aggressive attitude of the Japanese, which had made them competitors in nearly every line of industry. It seems to have been forgotten that the earlier experience of Hawaii with the Chinese had not been altogether without friction.

In 1887 and 1888 restrictions had been placed by the native Government of Hawaii on the immigration of Chinese, and in 1889 a petition was presented by citizens of Honolulu asking for the removal of the restrictions on the admission of Chinese laborers. In reply to the petition, the King's cabinet, consisting of John Austin, L. A. Thurston, S. M. Damon, and C. W. Ashford, stated:

There can be no competition between a Chinese and a white mechanic. It is simply a process of substitution of the former for the latter. * * * The result in this country, especially in the towns and in Honolulu, has been that by the gradual process of substitution Chinese have taken the places and are doing the work which but for their presence would be filled and performed by whites and natives. It is true that the number of white and of native mechanics has decreased but little, but the increase of Chinese has taken up all and more than the increase in business. And but for the 600 Chinese mechanics in Honolulu there would be at least 400 or 500 white and native mechanics. Unless protective measures are taken, this process will continue in increasing ratio. We are on the highway which the footsteps of Singapore have trodden, and a like policy will produce like results so far as Chinese ascendancy is concerned.

An excellent opportunity has been afforded in Hawaii of observing workers of the two nationalities under similar conditions, and it is the universal testimony that the Japanese are more ambitious and more enterprising than the Chinese. The Japanese diffuse themselves more widely in a competitive sense, not only with different classes of workmen, but with employers as well. They appear in the field as

manufacturers and contractors, at first in a small way, but with growing capital and influence. They enter the skilled trades, trying every occupation that offers instead of confining themselves to unskilled labor and a comparatively limited range of employments. Further, the Japanese know how to take systematic advantage of emergencies to extend their economic control of an industry. As illustrating this disposition two instances were reported where Japanese orchard laborers in California, upon finding that they controlled the labor situation in the vicinity, forced the orchard owners to sell them the crops at a very low price under the threat of letting the fruit spoil on the trees if this demand was not conceded. The Japanese are not content to remain in an inferior status as are Chinese coolies, nor are they willing to remain wage-earners permanently. They are enterprising, alert, keen, intelligent—shrewder in many instances than their Caucasian overseers or employers.

During the controversy in regard to the commercial and industrial encroachments of the Japanese and the recent agitation for the admission of Chinese much apprehension was expressed and considerable capital was made of the possibilities of the Asiatics acquiring a commercial and a political control equal to the control they now exercise over the labor field. It is more than probable that in some quarters this fear of political and commercial control is partly assumed, and that the possible danger was exaggerated in order to win favor for the proposal to admit Chinese, since the limited stay allowed the Chinese coolies, their restriction to the field of unskilled labor, and the importation of men alone, would eliminate the possibility of either commercial or political control by Chinese. But there is no doubt also that a large part of the apprehension expressed is honest, and is due to the increased activity of the Japanese in all lines of trades and industry, and to the growing number of native-born Japanese. But in order to acquire this apprehended control of Hawaii, the Asiatic population will have to become the dominant element in more than mere numbers. It will have to secure possession of a proportionate share of the wealth of the Territory, and the natural increase of the Asiatics will have to represent a permanent population in the islands.

PROPERTY INTERESTS OF ASIATICS.

The extent to which the Orientals in Hawaii have acquired control of the wealth of the Territory is very slight in comparison to their numbers. By far the greater portion of the property held by Asiatics is owned by Chinese, who are in most cases permanent residents, and in many instances American citizens. An accurate statement of the valuation and distribution of property is given in the taxation figures. For taxation purposes property in Hawaii is assessed for its

full value, and its appraisement is said to be very complete and exact. The taxation rate is 1 per cent upon both real and personal property. The personal and real property of corporations is assessed directly against the companies. The following tables show the number of payers of personal tax and property tax, by nationality, for the years 1901 and 1904, the valuation of personal and real property for the same years, and also the payers of poll tax for the year 1904:

NUMBER OF PAYERS OF PERSONAL TAX AND OF PROPERTY TAX, BY NATIONALITY, 1901 AND 1904.

Nationality.	Number of payers of personal tax. (a)		Number of payers of property tax.	
	1901.	1904.	1901.	1904.
Corporations	153	.....	198	585
Caucasians	7,251	6,604	3,365	4,861
Hawaiians	3,679	5,375	5,980	6,713
Total	11,083	11,979	9,543	12,159
Chinese	12,926	7,745	1,115	2,267
Japanese	26,560	33,376	870	1,955
Total Oriental	39,486	41,121	1,985	4,222
Grand total	50,569	53,100	11,528	16,381

a The classification of taxpayers in this column is apparently not the same for the two years; in 1901 payers of taxes upon personal property and in 1904 payers of personal taxes, i. e., poll, road, and school taxes, being entered.

VALUATION OF REAL AND PERSONAL PROPERTY, BY NATIONALITY, 1901 AND 1904.

Nationality.	Real property.		Personal property.	
	1901.	1904.	1901.	1904.
Corporations	\$21,777,913	\$29,092,293	\$49,436,326	\$51,624,966
Caucasians	19,890,011	20,846,022	5,370,684	3,651,934
Hawaiians	12,817,278	16,098,538	959,388	1,296,204
Total	54,485,202	66,036,853	55,766,398	56,573,104
Chinese	1,320,084	1,705,641	3,287,802	4,090,504
Japanese	128,163	168,545	1,268,180	1,591,125
Total Oriental	1,448,247	1,874,186	4,555,982	5,681,629
Grand total	55,933,449	67,911,039	60,322,380	62,254,733

PAYERS OF POLL TAX, BY NATIONALITY, 1904.

Island.	Caucasian.	Hawaiian.	Chinese.	Japanese.	Total.
Hawaii	2,076	1,942	1,619	12,656	18,193
Kauai	581	855	1,285	5,694	8,415
Lanai	2	29	.....	.....	31
Maua	676	519	693	5,798	7,686
Molokai	8	94	20	19	141
Niihau	1	24	.....	.....	25
Oahu	3,260	1,912	4,126	9,407	18,706
Total	6,604	5,375	7,745	33,474	53,198
Honolulu only	2,785	1,428	2,131	2,688	9,032

The figures indicate a wider distribution of property among Asiatics than there was four years ago, though with a comparatively slight

increase in the aggregate amount of such property. In 1901 one payer of property taxes in every six was an Oriental, while in 1904 one payer in every four—or less than that number—was of that race. The personal property owned by Asiatics had increased from \$4,555,982 to \$5,681,629, or \$1,125,647 during the period, and the value of real property owned by them has risen from \$1,448,247 to \$1,874,186, or \$425,939. The amount of real property owned by Japanese is still insignificant, being assessed at but \$168,545, or less than one-fourth of 1 per cent of the total real estate in the islands. They own less than one-tenth the amount held by Chinese residents. Asiatics of all nationalities own 2.77 per cent of the real property and 9.18 per cent of the personal property reported. The transient character of the Japanese as compared with the Chinese population now in Hawaii is indicated by the fact that while the latter own \$2.39 worth of personal property for every dollar's worth of real property that they hold, the Japanese own \$9.44 worth of personal property for every dollar they have invested in lands or buildings. But this condition is partly accounted for also by the fact that Chinese have been in the islands for a much longer period, and have bought property, while the Japanese came in at a later period, and a large part of their holdings represent property leased rather than owned.

While the number of Caucasians and Hawaiians paying a property tax almost equals the number paying personal taxes, the proportion of property to personal taxpayers among the Asiatics is but a trifle over 1 to 10. The valuation of the personal property owned by Caucasians has decreased remarkably during the four years reported. This is probably due in part to the practice of incorporating private business firms and personal estates, which transfers such property to the corporation schedules. Most of the increase in the valuation of personal property occurring during the period, however, is among Asiatics. This may be accounted for by the great depreciation in sugar stocks since 1901. But the chief addition to the wealth of the Territory has resulted from the growing value of real property, and this has been almost entirely to the advantage of corporations and citizen residents. While the real property owned by Orientals has increased in value by the amount of \$425,939, that owned by Caucasians, Hawaiians, and corporations has increased \$11,551,651. Among personal owners, the Hawaiians have benefited most from this increase. While the number of Oriental property taxpayers has grown, the average amount of property owned by them has fallen from \$3,025 in 1901, to \$1,790 in 1904. The portion of the total property of the Territory owned by Orientals rose from 5.16 per cent in 1901 to 5.8 per cent in 1904; but a large part of this increase was due to the growing estates of the Chinese, many of whom are American citizens. Still, the proportion of the whole assessment owned by Japanese alone rose from 1.21 per

cent to 1.35 per cent during the same period. These figures show that while there has recently been a very slow relative increase in the amount of property held by Asiatics as compared with that held by other races and nationalities in Hawaii, the question of direct economic control of wealth and wealth-producing resources by Orientals is not yet a pressing one in the Territory.

ORIENTAL POPULATION AND POLITICAL CONTROL.

The danger of political control, however, by native born of Asiatic descent has been emphasized more than the danger of Asiatics acquiring a commercial supremacy. The statistics showing the increase of the various nationalities in the schools of the Territory have caused a growing apprehension, and are frequently pointed to as an evidence of the danger of this future political domination.

From 1902 to 1905 the increase in the number of Hawaiian pupils in the schools of the Territory was less than 2 per cent, and the increase in the number of Part-Hawaiians was only 14 per cent. The increase in all the other nationalities in the islands, exclusive of Asiatics, was only 3 per cent, while the increase in Chinese pupils in 1905, as against 1902, was 42 per cent, and the increase of Japanese pupils 81 per cent.^(a) In spite of this rapid increase, however, the Japanese pupils in the schools in 1905 numbered only 3,609 and the Chinese 1,985, out of a total school attendance of 20,406. In 1900 the number of Japanese children in the schools of Hawaii was 1,352, while the number of native-born Japanese in the islands, as reported by the census, was 4,881. There were, therefore, in the schools 27.7 per cent of the total number of native-born Japanese. If the same proportion held good for 1905, the number of native-born Japanese in the Territory would be over 13,000, but it is not safe to assume that this is the case. A large number of Japanese children have left the islands, and it is more than likely that the proportion of all the Japanese children in the Territory who are of school age is larger than it was five years ago, and that the percentage of Japanese children of school age who are attending school is also larger than it was then.

The study of such data as are available does not entirely warrant the apprehension that the electorate in Hawaii will be dominated by citizens of Asiatic descent in the near future. As was pointed out in discussing the probable increase in the various elements in the population,^(b) the rate of increase in the Chinese population through native births will probably be a diminishing one, and as there were only 677 females in the Korean arrivals up to the end of the year 1905, that nationality is not an appreciable factor at the present time. On the other hand

^a A table showing the number and nationality of pupils in the public schools will be found on page 482.

^b See page 374.

there can be no doubt that there has been a considerable increase in the Japanese population through the birth in the islands of Japanese children, who in the course of time will be entitled to suffrage; and it is this race especially that is in the minds of those who point out the fear of political control by Asiatic citizens.

But this native-born population does not give evidence of becoming a permanent population. The figures giving the departures of Japanese, both to Japan and to the mainland, show a large percentage of women and children among the departures, thus indicating that the Japanese families in the Territory are as mobile and as transient as are the unmarried Japanese. If the prospect of citizenship for their children were at all important in the eyes of the Japanese, it is plain that the departures would be almost entirely made up of single men, and would include few women and fewer children. Another feature of significance is that the departures of Japanese women and children, particularly the latter, for the Orient are far larger than similar departures for the Coast. Thus during the period from July 1, 1902, to December 31, 1905, a period for which separate and comparable figures were obtained, 4,529 Japanese women and 3,580 children left Hawaii. Of these, 3,033 women and 3,101 children returned to the Orient, while only 1,496 women and 479 children migrated to the Coast.^(*) This very large preponderance of children being taken back to the Orient indicates that the prospect of citizenship for their children does not at all tend to lessen the desire of the Japanese immigrants to return to their home land when they have accumulated something in Hawaii. As very few children are included in the Japanese immigrants entering Hawaii, only 135 having arrived in the five years ending June 30, 1905, the greater part of the children going to the Orient or the Coast must represent Japanese born in Hawaii. Again, the statistics of registered births strengthen the conclusions suggested by these figures of departures. The following figures of registered births in the city of Honolulu for the years 1901, 1902, 1903, and 1904 are given as possessing some interest and as bearing upon the point under discussion:

REGISTERED BIRTHS IN HONOLULU, BY RACE OR NATIONALITY, 1901 TO 1904.

Race or nationality.	1901.	1902.	1903.	1904.
Caucasian, male	82	93	92	81
Caucasian, female	72	107	71	74
Hawaiian, male	35	62	33	40
Hawaiian, female	30	56	51	43
Part-Hawaiian, male	42	45	51	40
Part-Hawaiian, female	24	62	51	49
Chinese, male	154	151	125	93
Chinese, female	70	83	68	60
Japanese, male	26	35	25	37
Japanese, female	23	30	23	17
Asiatics	273	299	241	207
All others	285	425	439	327

* These figures do not include any of the 718 Japanese who left for the Coast by the Matson Line, age and sex not separately reported.

The preponderance of Chinese births in the table above is due to the fact that in practically all cases the Chinese register their children and take birth certificates in order to assure the child the rights of a citizen of the Territory and the privilege of entering and leaving the country and of visiting the mainland of America without hindrance. The Japanese population of Honolulu is as large as the Chinese population, and the registration of only 54 Japanese children as against 153 Chinese indicates that only a small portion of the Japanese births have been registered. In these cases it is possible that the parents intend their children to claim—or to have the right to claim—American citizenship upon reaching maturity, but the figures on the whole indicate no evidence of a growing desire on the part of Japanese residents to have their children qualified to become citizens of the United States. On the other hand, it must be remembered that heretofore most of the Japanese have been hired laborers, anxious to return to their native land as soon as they had saved a small competence. At the present time wherever possible the Japanese are securing land through purchase or lease. Many of the leases are for ten or even twenty years, and it is probable that in nearly all cases where land is owned or held under long leases by Japanese they will remain in the islands and rear families, and that this native-born population will be one day added to the voting population.

The electorate in Hawaii is small, there being only 12,550 voters in 1902. This number is made up almost entirely of Hawaiians and Caucasians. The Hawaiian element is steadily becoming smaller, since the losses to the electorate through deaths are larger than the additions through youths attaining voting age. The increase in the Caucasian voting population will probably be slow, as the number of those attaining a voting age will be partly offset by the deaths of those now included in the voting population. On the other hand, not only are the native-born Japanese probably increasing more rapidly than any other nationality, but as there are practically no Japanese included in the electorate, additions to the voting population due to the native-born Japanese attaining a voting age would not be in any degree offset by deaths of men of that nationality now exercising the franchise. A native-born Japanese element may be added to the electorate very rapidly after a comparatively short period, and if the Japanese born in the islands become a permanent population eager to claim its citizenship, the fear of future political domination by a single nationality will become a reality.

But there are aspects of the question of Oriental control other than appear in a statistical presentation of the subject, and which go far to justify the growing dissatisfaction with existing conditions and the increasing fear of the Orientals now so widespread in the Territory of Hawaii. There are purely competitive factors in the problem that

do not depend upon the movement of the Asiatic population or the extent to which the latter has engrossed the wealth of the Territory. As one persistent undercutter may lower conditions of trade over a wide area, exerting an influence out of all proportion to his business standing or the capital invested in his enterprise, so an alien laboring population with a lower standard of wages and of living than other residents of a country may disturb all conditions of labor and mercantile competition. The influence that such a population exerts may become so great as to enable it to exercise many of the functions of property owners without possessing property, and to determine the sociological conditions that are to prevail in a country over the laws and institutions of which it has no direct control. Although the Asiatic population of Hawaii is not being reenforced to any alarming extent from the Orient, yet its power and influence are growing more rapidly than its numbers. Prior to annexation a large fraction of the Asiatic laborers were subject to penal contracts, and were in consequence under absolute control by their employers. To-day they are free workers, and can employ their race solidarity to dictate where they formerly obeyed. This aspect of the change in conditions is the one that most forcibly impresses plantation managers and others immediately interested in plantations. Since annexation the Japanese have established themselves in Hawaii upon a more permanent basis. Availing themselves of their greater economic freedom they have engaged in a variety of pursuits which their growing familiarity with the country rendered possible, and so rapid and radical have been the changes in their status that uneasiness as to the future is rapidly spreading among whites and natives.

But quite apart from surmises as to future political contingencies, even to-day the question of self-government is greatly complicated by the racial elements in Hawaii. The present government, although based upon universal suffrage of the citizen classes, is none the less a government by a small minority of the total population, as the migratory Japanese can not become citizens and their children born in the islands have not yet reached the age when they must decide under which flag they are to cast their lot. Nominal popular government with a large unfranchised majority is in itself an evil the practical effects of which are clearly to be seen in Hawaii. Moreover, unless conditions change decidedly within a few years the native-born Asiatics undoubtedly could, if they wished, exercise considerable influence, if not complete control, over the government of the Territory. While there is no reason to assume that they would prove less intelligent citizens than descendants of other races, they would, nevertheless, from lack of common traditions and lack of opportunity to familiarize themselves with our institutions and national sentiments—due to their isolated position and consequent inability to “rub up” against the nation at

large—necessarily be less American than any other class of citizens and more affiliated in race and sympathy with their nearest Asiatic neighbor. There is no indication as yet that they will amalgamate with the Caucasians. In religion as well as in race they will differ totally and permanently from ourselves and retain their kinship with another country. The contingency here suggested offers a serious problem to the citizens of Hawaii, and one in which the whole nation is interested. The industrial and the political problems of Hawaii are at present inseparable and interwoven, and on this account the labor difficulties with which the planters, merchants, and artisans of Hawaii are wrestling—and their remedies for relief—become a matter of concern for the American people at large.

EFFECT OF ORIENTALIZATION OF POPULATION UPON CHARACTER OF CITIZENSHIP.

Although the Asiatics have up to the present slight control of the wealth of the Territory, and although they exercise no appreciable control through suffrage, the Orientalization of the population of the islands has already proved a serious detriment to their civic interests. It makes Hawaii a place to be exploited by a working population who endeavor to maintain the lowest standard of living in order to have the largest amount of saving with which to return home at as early a date as possible. The earnings and savings of this population do not enter into the industry of the islands, do not go to the building up of homes, or in any way enter into the development of the community.

As a further consequence of this Orientalization there is practically in the Territory of Hawaii nothing corresponding to that element of citizenship which forms the backbone of our commonwealths on the mainland. An agricultural community in America ordinarily represents a very large proportion of independent, self-reliant farmers. In no other part of the community is the proportion of men working for wages so small and the proportion of independent producers so large. But in Hawaii, although a preponderatingly agricultural community, the citizens represent largely two classes—a small group of employers and an overwhelmingly large preponderance of wage-earners. There are no successive gradations from one economic class to another, as there is on the mainland, where the higher-paid wage-earner and the smaller employer approach each other in economic importance. In Hawaii there is a wide gap between employer and wage-earner, and it was neither an exaggeration nor a figurative expression when a Hawaiian editor spoke of the Territory as composed of feudal barons and predial serfs. In American communities, however great may be the diversity or opposition of economic interests between employer and wage-earner, they have common social and political interests that draw them together and amalgamate them into the common body of

citizens. But in Hawaii, with its Oriental labor population excluded from citizenship by law and apparently indifferent to citizenship as a matter of fact, there is no common tie whatever, and the gap between employer and wage-earner is at once an economic gap, a social gap, and a political gap. There is no community of thought, nor of feeling, nor of sympathy. The character of an Oriental coolie population degrades the idea of labor, as did slave labor in the South. The Asiatic laborers are looked upon with contempt by their white employers, but they in turn reciprocate thoroughly the race contempt which the white class feels for them. Even the second generation of Orientals will develop a less desirable citizen class in Hawaii than would be the case on the mainland. The process of amalgamation and assimilation which might to some degree go on in a mainland community, with its American ideals and conditions fixed, settled, and dominant, and in which the population is overwhelmingly American, can not be expected in a community in which only a very small percentage of the population are even descendants of people who have known representative government and have long had traditions of free institutions.

But even if the white population of Hawaii were larger, more homogeneous, and more thoroughly imbued with American ideals and traditions, it could still exert but little influence on the Asiatics of the second generation. The two nationalities, though living side by side, are separated from one another by every possible bar. They differ in race, and their history and traditions have nothing in common. They differ widely in their experience of political institutions. They differ radically in their spiritual ideals and their religious beliefs. They differ wholly in their moral and social conventions, in their philosophy of life, and their habit of thought. They therefore live apart, each maintaining separate and distinct its conventions and ideals. The second generation of Asiatics, therefore, however much in such a community they may conform to American business customs, remain alien in thought and sympathy.

EFFECT OF ASIATIC PUPILS UPON SCHOOL SYSTEM.

The public school system of the islands can not be expected to cope satisfactorily with such a situation, for the influence of the school under these conditions must necessarily be slight upon children who live apart among their own people, where all the customs and traditions of their home land are maintained. Further than this, the children of the Asiatic wage-earner will remain at school far too short a time to have any considerable American impress made upon them—certainly not a sufficient impress to overcome the persistent influence of their home environment. Moreover, the Japanese have been careful, wherever possible, to maintain Japanese schools side by side with the public schools; and indeed it is an open question whether the final

result in the schools will be the Americanizing of the Oriental or the Orientalizing of the schools.

At present the Asiatic pupils in the schools outnumber those of any other race, and if the present rate of increase of Asiatic pupils should continue they would within a very short period outnumber the pupils of all other races combined. How far such a swamping of the schools with Orientals will be compatible with the maintenance of an American school system and the exclusive use of the English language in the schools is a question that can be answered only by experience. But there are some indications that the same process of displacement will occur in educational institutions that has already been observed in wage-earning and mercantile pursuits, and that white pupils, at least, will be sent by their parents elsewhere than to the public schools to receive instruction. The motive for segregating pupils of such different racial and lingual antecedents extends beyond mere color prejudice.

The American pupil brought up among children of all races and attending school in a district where a majority of his schoolmates are Japanese never acquires a perfect mastery of his own language and speaks "pigeon English," often with a foreign accent. His progress in all studies has to be regulated by the progress of classes composed in great part of young people whose knowledge of English is imperfect and where purely linguistic training necessarily supersedes instruction in the essentials of the science or other subject taught. In other than purely pedagogic ways he is at a disadvantage. In personal habits and customs and social and ethical ideals he is apt to grow like those with whom he is associated in school life. There is no analogy between the situation in Hawaii in these respects and that in an American city having a large foreign school population. All European immigrants have a certain basis of Christian culture, taken as an element of civilization, which is a powerful aid in assimilation, and they are for the most part permanent settlers, ambitious to become like their neighbors. In Hawaii the material to be Americanized is much more intractable, and the assimilative forces are far weaker than upon the mainland. Hitherto the school system has been able to deal with the foreign element among the pupils successfully, but it is working at an increasing disadvantage. The chief danger lies in the possibility that a situation will be created where Americanization by association will become impossible through the practical exclusion of American pupils from the schools. Naturally, too, such exclusion would disincline American parents to remain in the islands, especially in isolated localities. The rapid increase of Asiatic children in a country school on Oahu was given as a reason why one or two families of American settlers had left the neighborhood. Many parents referred to the unpleasant features of these Orientalized schools and spoke of the

educational question as one of increasing seriousness in their vicinity. No doubt there is a tendency—how completely realized it is hard to say as yet—for Asiatic pupils to displace American pupils in the public schools in something like the same way that their parents displace white workers in many adult occupations.

THE CHINESE QUESTION.

The question of the admission of Chinese has been a vital issue in Hawaii ever since annexation. In 1901, 1902, 1903, and 1904 successive governors have urged in their annual reports a modification of the Chinese exclusion act which would permit the immigration of Chinese coolies to Hawaii under a legislative restriction confining them to agricultural pursuits, and thus preventing them from entering into competition with citizens in mercantile and mechanical pursuits.^(a) The proposal has been stated in detail as follows:

It would be of great advantage to the agricultural interests of these islands * * * if there could be a modification of the Chinese exclusion act permitting the immigration to these islands of a limited number of Chinese agricultural laborers, such laborers to be restricted to agricultural labor and domestic service, and strictly prohibited from engaging in mechanical and mercantile pursuits; such immigration to be so regulated that the identity of each laborer may be ascertained and a record kept thereof, and that he may be required at the end of from three to five years from the date of his arrival in these islands to depart therefrom, and that such laborer be not permitted to go from these islands to the mainland. The organic act takes care of this now. No Chinese can go to the mainland from Hawaii.^(b)

The proposal to admit Chinese, with legislation forbidding them from engaging in any form of trade or labor other than domestic service or field labor, appealed alike to the plantation interests and to the mercantile classes. Not only would the coming of the Chinese destroy the present solidarity of the working force on the plantations, but the restriction on the Chinese laborers would render the plantation

^a "That Congress be requested to authorize the immigration of a limited number of Chinese laborers, conditioned upon their engaging in agricultural pursuits only, during their residence in the Territory, and that upon their ceasing to do so, that they shall return to their own country." (From the report of the acting governor of the Territory of Hawaii for 1901, pp. 88 and 89.)

"That a limited immigration of Chinese laborers be permitted, conditioned upon their engaging in agricultural work for hire only during their stay in the Territory and subject to deportation at their own expense upon their ceasing to do so." (From the report of the governor of the Territory of Hawaii for 1902, p. 61.)

"That a limited immigration of Chinese laborers to the Territory be permitted, conditioned upon their engaging only in agricultural, mill, and domestic work for hire during their stay, and subject to deportation at their own expense upon their ceasing to do so." (From the report of the governor of the Territory of Hawaii for 1903, pp. 83 and 84.)

^b From report of governor for 1904, p. 11.

labor supply more stable by cutting off avenues of escape to other occupations in the islands; and since the mainland is closed to the Chinese, both the local and the coast competition for labor that now menaces the plantations would at one stroke be eliminated. At the same time, the proposal appealed to the mercantile classes as a means of escape from their present Asiatic competition. It acquired some slight support among the mechanics, but on the whole the workingmen have always been opposed to any proposition looking to the further admission of Asiatics into the islands. In the latter part of the year 1902 the Merchants' Association of Honolulu asked the local trade unions to indorse the proposition of the planters for the admission of Chinese laborers to engage in agricultural pursuits only, with deportation as the penalty for violating this provision. At a mass meeting of white mechanics and workingmen held in December of that year resolutions were adopted vigorously protesting against "any and all legislation tending to import any more Asiatics into the Hawaiian Islands."

At the time of annexation it was believed by the plantation interests that a modification of the exclusion act to admit Chinese to Hawaii could be secured with ease at Washington. After several years of ineffectual effort and after the difficulties in the way had been clearly pointed out by those most keenly appreciative of the American spirit, the expectation of securing Chinese began to wane, but in the second half of the year 1904 the hope of securing Chinese coolies revived and was strengthened from some cause or another, and a new and important chapter in the history of the agitation for Chinese was begun.

In the summer of 1904 the governor of the Territory directed the creation of a commission consisting of representatives selected by the workingmen's organizations of Honolulu and by the Builders and Traders' Exchange for the purpose of making a thorough investigation of the industrial situation of the Territory, and especially to report upon the question of labor, with a view to bringing facts before Congress in such a way as to secure the admission of Chinese to the Territory. The commission as constituted consisted of six members, three of whom were chosen by the Honolulu Trades and Labor Council and three by the Builders and Traders' Exchange. Mr. L. E. Pinkham, the president of the Territorial board of health, who was one of the representatives chosen by the Builders and Traders' Exchange, was designated as chairman of the commission, and the commission is usually referred to as the "Pinkham commission." The status of the commission was somewhat anomalous. Though appointed at the suggestion of the governor, the commission took the position that it was not an official body, and the compensation of its members, together with the general expenses of the commission, was defrayed from private sources. Some mystery was thrown about the

source from which its financial support came, but it was generally understood at the time, and it is now frankly admitted, that the planters supplied the funds.

During the latter part of the year 1904 the members of the commission visited all of the larger islands and practically every large plantation of importance, besides several small farming districts. Their report emphasized the fact of Japanese domination, and pointed out the possibility of its growing day by day into "a force that may become commercially irresistible;" and concluded that the only relief from the menace now hanging over the Territory was to permit the importation of Chinese for a period of not over ten years, with the provision "that the period of residence of individuals should be further limited to a term of five years, or a maximum of ten years, if after five years he should select to remain longer." One of the representatives of the labor organizations on the commission refused to sign a report recommending the admission of Chinese. The matter was referred back to the Trades and Labor Council, to have that organization, if possible, indorse the report and direct its representatives to sign it. A bitter fight inside the organizations resulted, and charges of corruption, intimidation by employers, and other similar charges were made. The Trades and Labor Council declined to indorse the report, whereupon two of the labor members of the committee signed it on their own responsibility. The report brought out with much emphasis the disastrous failures that had followed most attempts at small farming in the Territory. During the controversy in regard to the signing of the report, the nature of its recommendations was made known to the leading daily paper of Honolulu, which at once took direct issue with the findings of the commission concerning small farming and fiercely attacked both the conclusions of the report and the methods of the commission. The advocates of the encouragement of small farming and the consequent building up of a white population in Hawaii, many of whom were in favor of the recommendation of the commission for the admission of Chinese, at once lined up against that feature of the report which seemed to aim a blow at the small-farming industry. As a result of the refusal of the labor organizations to indorse the report and of the bitter attack made upon it by the advocates of small farming, the report was transmitted to the governor as a private report rather than as a public one; it was not published by the Territorial Government or formally placed before the authorities at Washington, as had been originally intended.

Quite apart from the fundamental conclusions and the recommendations which it presents, the report contains undoubtedly the most comprehensive description and statistical account of the sugar industry of Hawaii that has ever been compiled. The maps, the charts, and the photographs accompanying it give a graphic view of the most

important producing sections of the islands. In these respects it is a document of great potential value, but rendered of little moment by the fact that it deals primarily with conditions and questions so involved in controversy at the present time that the wisest solution must be determined by time and experience rather than by even the most unbiased investigation, and by the further fact that some of the conditions surrounding the investigation and the efforts to secure the indorsement of the report tended to discredit it.

Many working people were found in Hawaii, both inside and outside of labor organizations, who were candidly of the opinion that only through some such arrangement as that proposed in the Pinkham report was it practicable to overcome successfully the rapidly increasing encroachment of the Japanese upon all kinds of employment. Most of those holding this view, however, are workmen who have become resigned to Oriental competition in some form, and believe they could easier hold their own against the plodding Chinese coolie than against the ambitious and energetic Japanese. Unquestionably, however, a majority of the white workers not actually employed on the plantations are bitterly opposed to such a remedy, which they believe would only accentuate the present evil. They urge that the severer the competition for plantation employment encountered by the Japanese from the incoming Chinese, the severer will be the competition into which the former will enter with the white man, for they do not believe that the Japanese will give up their economic hold upon the islands without a struggle. The general sentiment of citizen labor in Hawaii is decidedly not in favor of admitting Chinese.

There is also opposition in other quarters to the proposal to admit Chinese. Even on some of the plantations the proposal is regarded with but lukewarm favor. Some of the planters realize that the protective tariff on sugar of \$34 per ton which they enjoy is part of a system justified in the eyes of a great mass of American voters chiefly on the ground that it protects them from the competition of workers in countries where wages and the standard of living are lower than in America, and they understand fully that the tariff system does not contemplate that the producer shall have the advantage on the one hand of a protected home market, and on the other of cheap labor imported from abroad for his special benefit. They have deprecated any agitation of the proposal for Chinese, fearing that a public controversy might be started that would focus attention upon Hawaiian conditions and lead to possible legislation obstructing the present labor supply from the Orient. These planters have urged that the sooner the Chinese question is dropped and the full attention of the plantation interests turned to some solution of their labor difficulties more practicable politically, even if somewhat less desirable economically, than that previously

attempted, the brighter will be the prospect for a successful outcome. More than this, there are a few men largely interested in the sugar business in Hawaii—men whose entire fortune is directly or indirectly involved in plantation enterprises—who are emphatically opposed to the admission of Chinese coolies, and who would even view without disfavor some limitation—if not too radical—of the present Oriental immigration. These men are of deep-rooted American stock, and long residence in these islands, where commercial interests and commercial ideals have long dominated governmental policies, has not destroyed their American instincts. They look at the question of a labor supply from a civic as well as from a financial viewpoint, and are willing to sacrifice profits in an effort to develop a representative American community in the Territory of Hawaii. They are advocates, therefore, of a policy looking toward a resident labor supply. They are far-sighted enough to realize that any measures likely to increase the present dependence of the Territory upon imported labor only postpones the crisis to a day of more serious reckoning, and that the sugar business will never rest upon an assured basis until it can obtain at home the labor needed for its maintenance. The impression prevails outside of Hawaii, and even among some of the residents of the islands, that the planters are so knit together by the identity of their commercial interests that they are in practical agreement upon every question relating to labor. As a matter of fact, this is not and never has been true. Prior to annexation there was always a difference of opinion among them as to the advisability of continuing the contract system, and "free labor" had some advocates in the ranks of the planters long before the penal contracts were abolished by Congress. Likewise at the present time the same diversity of opinion manifests itself in regard to newer phases of the labor problem. Some of the sugar men stated that the insistent demand for Chinese cheap labor came principally from planters who were not Americans and whose interests in the islands were purely commercial, and who were indifferent as to its civic development and the permanent prosperity of its whole population.

It must be remembered that the Planters' Association includes a very strong element composed of men who are citizens of other countries than America, who regard tropical countries as colonial possessions to be exploited for the benefit of citizens of the home country. They have little appreciation of the American spirit and little sympathy with any effort to develop a democratic commonwealth in Hawaii—if such development interferes with the present system of sugar planting. There are others interested in plantation development who are of American descent and even of American birth, but whose long residence in the islands has blunted their appreciation of fundamental

American political conceptions. Their one demand is for legislation that will assure them Chinese labor, and at one stroke simplify plantation administration and increase profits. They are impatient of any viewpoint that would sacrifice in any degree commercial interests to civic ideals. Both these groups regard such a viewpoint as sentimental and consequently indefensible. So insistent have been the representatives of this element of the plantation interests for the admission of Chinese, that they have seriously discussed the proposition that the Territory ask Congress to diminish its status as a political community and change the islands from a Territory of the United States to a colonial dependency, in order that its special industry might more easily secure special legislation permitting importation of Asiatic labor, and the reestablishment of some form of contract system. They do not appreciate the full force of the obstacles in the way of such a proposal, nor realize that an agitation looking to the disestablishment of an existing Territory of the United States in favor of a form of government receiving no recognition in our organic law, might rouse the popular democratic spirit of the nation, not only in opposition to this specific proposal, but to an extent that might insist upon changes in Hawaii quite the reverse of those sought by existing industries.

There are now very few in the islands who seriously entertain the hope of securing the admission of Chinese coolies to the Territory of Hawaii. Any proposal to admit Chinese without restricting them to agricultural labor and domestic service would arouse the united opposition of all the interests in the islands other than the plantation interests; and the only basis on which plantation interests could hope to secure the support of the mercantile and the labor interests of the islands was the plan to admit Chinese coolies, restricting them by law to field labor and domestic service, and making expulsion from the islands the penalty for any attempt to go into other lines of work than these. For a long time a large element of the plantation interests seriously believed that this provision to create what was practically a servile status for the Chinese would commend the proposal to the opposition, both in the islands and on the mainland. But within the past year very direct and forceful expressions of views with regard to this proposition from authoritative sources have forced upon Hawaii a realization of the futility of any hope that an American Congress could be induced to pass a law creating on American territory a status of legalized servility.

THE BOARD OF IMMIGRATION.

As a result, all the elements of the plantation interests have agreed to cooperate with the other interests of the islands in a strong effort to induce white immigration into the Territory. The Federal immigration laws against assisted immigration have heretofore seemed to stand

in the way of successful efforts by individuals or corporations to stimulate white immigration to Hawaii. To obviate this difficulty, the legislature in April, 1905, passed an act creating an official board of immigration for the Territory. The board consists of five members appointed by the governor, and it is given power "to make contracts with railroads, steamboat lines, and other transportation companies, either for securing a low rate of fare to immigrants or for paying the passage money of desirable immigrants, and to make the necessary preparation for their reception and temporary accommodation." One section of the law requires the board to open books and solicit subscriptions of money and other material aid from persons and corporations, to be used in promoting immigration to the Territory, and provides that any money so received shall be spent before drawing upon the appropriations made by the legislature. Under this act a board has recently been organized and has been assured both of the moral and financial support of the Planters' Association in its efforts to secure a white population for the Territory. It is yet too early to judge what policy the board will adopt in carrying out its objects, or how successful it will be in accomplishing them.

The ostensible and doubtless the primary purpose of the immigration board is to promote white settlement in the Territory, especially from the Azores and those countries of southern Europe likely to supply labor that can compete successfully with the Japanese. So far as promoting Japanese or even Korean immigration is concerned, it would appear to be a superfluous organization at present. The growing need of a diversified labor supply has so impressed itself upon employing interests that they are likely to regard with sympathy every effort to further white immigration of the proper kind to Hawaii. It would be a disaster of the first magnitude, both to the immigrants themselves and to the community, for the board to bring into the Territory a lot of people of the soft-handed class, or even to encourage at present a movement of laborers from any country where the working people were not accustomed to an extremely simple and frugal scale of living. Only such frugal laborers can survive under the conditions of economic competition now existing in Hawaii. In the same way that in foresting an area already in the possession of hardy but less desirable growths, it is necessary to select seedlings of an unusually sturdy and aggressive stock, so in creating a resident supply of citizen labor in Hawaii it will be necessary to introduce workers of those nationalities best fitted not only to thrive under the climatic conditions prevailing in the Territory, but also to meet the competition of labor already in the field.

The creation of this board of immigration, and the united support of which it seems assured, mark an epoch in the development of Hawaii alike with respect to its labor conditions and to its civic growth. The

new experiment has aroused enthusiasm, and high hopes are entertained of its success; but the problem of securing immigrants of the most desirable class for Hawaii is a very complex one, and there are very serious considerations involved in this movement which can not be overlooked. Difficulties will arise, and serious ones, and unless the support behind the immigration board is sincere, persistent, stout-hearted, and, above all, unanimous, the effort will fail. It has been suggested by some long familiar with the history of the islands that there is still an element of importance in the Territory which would not regret to see it fail, since in that case the need for Chinese coolies could again be insisted upon and be urged as the one salvation for the sugar industry of Hawaii.

Although the act creating the board provides that it shall "solicit subscriptions of money and other material aid from persons and corporations," it is of course plain that the only persons and corporations that can either supply the money to assist immigrants to the Territory or offer the means of earning a livelihood are the plantation owners. At present there seems to be a complete harmony among all the interests of the Territory in the effort to encourage the upbuilding of the Territory through white immigration, but there has always been a very clear-cut antagonism between the commercial interests of the planters and the civic needs of the Territory, and the present experiment through the immigration board will not have gone far before this antagonism of interest will again obtrude itself. The prime need of the planters under the present system of cultivation is a class of immigrants who will furnish cheap labor for the cane fields; but the mere substitution of a Caucasian wage-earning population for a body of Asiatic wage-earners will only advance the civic interests of the Territory by a short step. What the Territory needs is not a small employing class and an overwhelmingly large proportion of day laborers, but a body of independent land-owning farmers, together with the mechanic and mercantile community that such a population would maintain.

Even if the first immigrants are satisfied with a homestead and a garden patch and steady employment in the cane fields, their descendants, under the influence of a public educational system and the stimulating influence of American institutions, will not be satisfied to accept the permanent status of field hands. This has already been demonstrated by an earlier experiment. The Portuguese were brought in for the purpose of supplying plantation laborers, but most of these are engaged in skilled or semiskilled occupations, and even when the demand for field labor was most pressing the second generation of Portuguese were leaving the islands, seeking employment on the mainland. If a Caucasian people can be found with the humility of ambition that will permit them and their descendants to remain satisfied

with the permanent status of field hands, they will prove sorry stuff out of which to build up a self-governing American commonwealth. As Hawaii is and must remain preponderatingly agricultural, the only direction for the ambition of most of the white population will lie in securing the land to enable them to become independent farmers. If they can not secure this a steady outflow toward the mainland of the United States will draw away from the Territory the best material for its citizenship. A population clamoring for land is the last thing the plantation interests could desire. Considerable of their present holdings represent public lands held under lease, but even if these were gradually withdrawn to meet the demand of a growing white population it would stay the demand only temporarily. There could be no permanent peace in the affairs of the Territory so long as a few individuals held immense tracts of arable land under cane cultivation, while at the same time ambitious and desirable citizens were steadily leaving the Territory to seek openings elsewhere; such a loss to the Territorial population must inevitably lead to political agitation looking to the breaking up of the large plantations. The planters naturally have no desire to see such a condition brought about, and it would be only natural for them to grow lukewarm in their financial support of an immigration board the efforts of which, if successful, must inevitably lead to such a situation.

The attitude of the planters toward such an outcome of white immigration is based not alone upon a selfish care for their own interests, but is likewise due to a feeling on their part that they have rights in the matter based upon a sense of justice. Much of the present sugar land of Hawaii was made productive at enormous expense and great risk by those who undertook the development. Millions of dollars have been spent in great irrigation works to gather the rainfall from the mountains, in sinking wells, and in the building of pumping plants sufficient in some cases to supply the water for a large American city. The planters therefore naturally resent any proposition that looks to the breaking up of the plantations that they have thus developed. It is further insisted by them, and seems to be nearly an accepted dogma throughout Hawaii, that in the climate of Hawaii white men can not do the work in the cane fields, and that any proposition looking to an increase of white settlers and the breaking up of the plantations must prove futile. It is needless to discuss this proposition here. It is unquestionable that under the present system of cane raising white men will not work in the cane fields of Hawaii, but the reasons for this are social and psychological as much as they are physical. The experiment was tried several years ago on the Ewa plantation of bringing farmers from California and giving them holdings on that plantation. The experiment proved a failure, and is cited everywhere by the planters to-day as a proof of the utter futility of any hope that any

considerable white laboring or white farming population could be built up in the Territory of Hawaii. The only thing that the experiment did prove was that white men can not fit into the present plantation régime. If it is seriously maintained that this experiment is conclusive, not only as concerns the problem of a stable labor supply for the planters, but also as to the further problem of building up a self-reliant population of independent farmers, it can only be said that never before has a large and vital problem in state building been dismissed as settled by so trivial an experiment. That such evidence should be cited as conclusive is still more surprising when it is recalled that there are now men in Hawaii who saw the pioneer days of California and the great West, and who know, therefore, what is possible for a determined people. If the board of immigration, therefore, has a large measure of success in meeting the civic needs of the Territory, just to that degree will it hasten the time when civic interests and commercial interests come into conflict. The labor problem and the civic problem of Hawaii are in reality only two aspects of a single problem. Its settlement will not be reached without both struggle and sacrifice, and will be brought about by forces which have not yet been seen in operation in Hawaii.

RESIDENT LABOR.

The natives have nearly vanished from field occupations, forming a constantly decreasing portion of the semiskilled and skilled workers in the sugar industry, and all the labor in Hawaii comes from immigrant sources. Many of the white wage-earners were originally contract laborers or are descendants of men brought into the country to work on the plantations. This applies to Germans and Scandinavians as well as to Portuguese. The Porto Ricans are the most recent arrivals of this class. Nearly all of these workers were, therefore, in the first instance, imported labor. On the other hand, many of the alien Chinese and practically all the Hawaiian-born Chinese, as well as a smaller number of Japanese, intend to make their home in Hawaii. Some of these Orientals are American citizens by nativity or because they were citizens of the Hawaiian kingdom prior to annexation, and enjoy full political rights in the Territory. Nevertheless in a broad way Oriental labor may be classed as imported labor, and plantation workers of all other nationalities as resident labor in Hawaii. The Asiatics come over as temporary visitors, incapable of acquiring citizenship, and not disposed to settle permanently in the country. The immigrants of other races either come with the intention of making Hawaii their permanent abiding place, or acquire that intention after a few years' residence; they can become citizens, and they or their children exercise this right. One population is migratory, the other settled; one remains unassimilated and alien, the other becomes assimilated

and American. Considered under a civic aspect, then, one is alien, and the other is citizen; but considered from the purely economic point of view of labor supply, one is imported and the other is resident labor.

The supply of workers more or less permanently attached to the islands consists of Porto Rican, Hawaiian, and Portuguese field hands, with a slight sprinkling of other Europeans; and of both Hawaiians and white men of various nationalities in skilled occupations. On account of their numbers and their adaptability to plantation work, the Portuguese are by far the most important element among resident laborers.

The Portuguese were originally brought from the Azore Islands, excepting a few recruits from the mainland of Portugal, who proved far less satisfactory than their island countrymen. The number of residents in Hawaii who reported their birthplace as Portugal at the time the census of 1900 was taken was 6,512. Practically all of these came to Hawaii prior to 1886, and as the total importation of Portuguese was less than 11,000, it is evident—after allowing for the deaths occurring during an average residence of more than fifteen years—that comparatively few of the original immigrants have left Hawaii for other countries. The birth rate among the Portuguese is very high and the population of Portuguese descent probably exceeds the number who were born in Portugal. In 1900 there were 3,809 "Portuguese" children attending school in the Territory. This number had increased to 4,448 in 1904. Evidently, therefore, this element of the population is not only permanent but it is increasing.

The same inducements have existed to attract the Portuguese to the Pacific coast that have recently influenced such large numbers of Japanese to migrate to that country, but they have never had the same effect upon the Portuguese population. Occasionally a temporary movement toward California has been started among them, but home ties and habits have checked this tendency before it assumed important proportions. In the report of the president of the bureau of immigration for 1894, it is stated: "A large number of Portuguese have left for the States, thinking to better themselves, but with no such result." A somewhat similar state of affairs existed eleven years later, in 1905, due partly to increasing Japanese competition, and partly perhaps to a sympathetic movement started by the example of the Japanese laborers going to California. But so large a portion of the adult Portuguese workmen now employed on the plantation occupy positions above those of ordinary field laborers, and the advantage to men with families, as they for the most part are, of having a free home and an assured position throughout the year is so great, that few of them could better themselves as unskilled laborers upon the Coast. As skilled workmen they have hardly the training and mechanical alertness needed in order

to compete with American mechanics at an equal wage, and they encounter difficulties in entering the trade unions. Therefore, as soon as a few dissatisfied persons have left, reports of their hardships in their new home usually discourage other intending emigrants. Several instances were reported where Portuguese, who had left for California with a considerable sum of savings, had been obliged to write back to friends at home for money to return to Hawaii. One locomotive engineer who had left a position paying \$60 a month to go to California, came back in a few months and gladly accepted a position at \$30 a month on the same plantation.

The Portuguese have strong home ties and family affections. The children go to work as soon as they have left school and are often employed in the lighter forms of field labor during school vacations. Neatly clad little girls were observed irrigating cane about the edges of the fields and children often cut the cane used for planting. Even after the sons and daughters are full grown, and sometimes after they are 21, they give their wages to their parents, becoming their own masters in this respect only after marriage. Possibly this affords an additional reason, if one is needed, to account for the popularity of the institution of matrimony among them. It has been the policy at Lihue plantation for many years to give a present of \$5 to every young mother among the white working people; but motherhood, likewise, hardly needs encouragement. The Portuguese consul at Honolulu related an instance that had recently come to his knowledge, in a family where he visited, of an old Portuguese woman, still residing on the plantation where she had formerly been employed, who could count 64 descendants on that and the neighboring plantations.

Therefore the Portuguese are home makers. Their quarters in the plantation camps afford a marked contrast to those of other nationalities, on account of their neatness and well-ordered surroundings and homelike atmosphere. The people are not migratory from one plantation to another, and statistics show that they are the steadiest workers—in the sense of working every day—now employed in cane cultivation.

While many Portuguese remain on plantations until old age, they do not care to remain field laborers all their life. In this respect they do not differ in the least from Asiatics, who are no more permanent than the same class of white labor in plantation occupations. In comparing whites and Asiatics, or rather resident and imported labor, one important fact is often overlooked. Imported labor is temporary labor. It does not live in the country until the age of retirement. Its economic and social ambitions usually receive their satisfaction in another country. The average Japanese or Chinaman who came to Hawaii in former days seldom worked in the cane fields more than five or seven years. After that time he usually either returned to his home country with the competence he had earned, or remained and

entered other forms of employment. He contributed, if he was competent, to the secondary population of small traders, semiskilled mechanics, and persons engaged in personal service, which grew up in part because people tired of plantation life and being unable or indisposed to return to Asia had to be employed. It was not necessarily any racial peculiarity or physiological advantage of the Oriental that adapted him to cane cultivation. We have no proof that he would not break down as quickly—even more quickly—than a white man under the severe labor of the Tropics. The Japanese, like the Portuguese, come from the temperate zone, and the Koreans now immigrating are from a country possessing considerable rigor of climate. Like the Asiatics, the Portuguese—let it be repeated—tire of field labor in time, or become physically incapacitated for it, and many of them for that reason flock into Honolulu and the smaller towns. They do not return to Portugal with their savings. Some of them, failing to find employment for which they are qualified, and forced to compete with Japanese and Chinese unskilled laborers, suffer considerable distress, especially in Honolulu. This misfortune is not so great as it might be, for the children usually support their parents loyally, and the climate of Hawaii prevents even acute poverty from becoming unbearable. It is an evil that hardly would exist at all if it were not for Asiatic competition and the limited opportunity for obtaining rural homes.

Porto Rican immigration, which was due entirely to the solicitation and aid of the planters, had ceased before publication of the preceding report in 1902. The Porto Rican population appears to be decreasing, and the number employed on the plantations has fallen from 2,036 in 1902 to 1,907 in 1905. The men who remain are reported to be fairly good workers. They are more backward in matters relating to sanitation and personal cleanliness than any other class of labor employed on the plantations, and the women are not home makers. Still they are reported to be improving even in these matters, and those who remain on the plantations are certainly in better physical condition—better nourished and clothed—than they were in 1902. They are better off in these respects than was any similar class of labor in Porto Rico in 1899 or 1900. Most of them are restless, and they move aimlessly from one part of the islands to another. However, they are gradually congregating in certain localities where they seem to find conditions most suitable or agreeable, and they will probably be assimilated in time by the Portuguese and the native population. The experiment of importing Porto Ricans, or any kindred labor from the West Indies, is not likely to be repeated; and those who are at present in Hawaii will doubtless continue to constitute a decreasing fraction of the plantation force, until they finally disappear as a separate nationality from the plantation pay rolls.

The Hawaiians, like the Porto Ricans, are decreasing upon the plantations. The Part-Hawaiian population of the Territory, which contains a large admixture of Chinese blood, is growing, but these people do not take to unskilled labor as wage-earners. Many of them possess small homesteads which they cultivate, and a great number of those having Chinese blood in their veins are engaged in petty traffic or even in more ambitious commercial enterprises. The Hawaiians as a whole do not afford much promise as a future source of resident labor.

The white population of the Territory, apart from the Portuguese, is not available for field occupations. This may be partly because cane cultivation is more arduous work than white men care to engage in in the Tropics, but it is also due to the economic conditions and social atmosphere prevailing in the sugar industry. It is a waste of time to discuss the question whether an American or North European can or can not hoe, strip, and cut cane, for whatever the conclusion reached, the white labor question is not affected thereby. Under existing conditions white men of this class will not do field work in Hawaii, even though it should prove as easy and as profitable as harvesting wheat in Minnesota, for no considerable body of such white men will work side by side with Asiatics in the same occupation, especially if it be a somewhat menial one, and only by so doing could a transition from the present system of employing Orientals exclusively to one where white labor only was employed be effected. Furthermore, the planters are quite justified in maintaining that with their plantations solely dependent upon one or two thousand unskilled European laborers, such as are usually found doing the ruder work of America, plantation operations would become so precarious that no one would be willing to invest money in the industry. The profits of a season on a cane plantation can be lost through a comparatively short delay in handling the crop at the critical period of its development. A lawless strike at such a time might wipe out the profits of several years. There are crops of standing cane in Hawaii that represent an investment—not a speculative value, but an actual expenditure—of more than \$800,000. The only incendiary cane fire reported in Hawaii in 1905 was started by a disgruntled white man. The success of the plantation system is therefore conditioned to a great extent not only by cheap labor but also by docile and law-abiding labor. The "white" labor—in the sense of the word here used—that Hawaiian plantations could substitute for Asiatics under their present system of administration would be either too expensive or too unreliable for profitable operation.

The most competent observers hold that the complete displacement of Asiatics in cane cultivation could be effected, if at all, only by a complete revolution in the method of producing cane, attended by the breaking up of the large plantations and the substitution in their place

of a small farming system of cane planting. This is a change that can occur only gradually, and that unless dictated by almost calamitous necessities will be certain to meet with powerful and organized opposition from the great corporate interests now engaged in sugar production. There is nothing in existing conditions in Hawaii to suggest that such a change is likely to occur immediately. Present indications are that it would extend rather than limit Asiatic control of the industry. The question has been referred to in another connection in this report. The practical problem in Hawaii is not so much white versus Asiatic labor as it is resident versus imported labor.

Resident and imported labor stand in a competitive relation to each other different from that existing among various sections of a permanent laboring community. This difference, considered in detail, rests chiefly upon the following conditions:

1. Imported labor must always represent a lower standard of living and of wages than that prevailing among resident labor of the country to which it migrates. This is particularly true of labor imported for a limited period, for the profit of the laborer comes from obtaining a higher wage in the country to which he migrates, so that in a short time he may accumulate enough to support himself thereafter in his own country.

2. Imported labor has a special incentive to retain its low standard of living in the country to which it has moved, because this in most instances constitutes its special advantage over resident labor, which otherwise could compete successfully with it.

3. Laborers working in their home country usually possess the advantage of greater familiarity with the country and its industries, with the language and system of employment, and with domestic marketing facilities. They are acclimatized, and often they have homes and family connections that afford them cooperative support in labor competition not enjoyed by the immigrant.

Labor has hitherto been imported into Hawaii for three principal reasons: The industries of the country expanded so rapidly that they outgrew the resident labor supply; there was an accessible and abundant supply of cheap labor, having a very low standard of living, in neighboring Asiatic countries; and the resident labor domiciled in Hawaii has not possessed the natural advantages which resident labor in other countries enjoys, especially ample opportunity to acquire small land holdings and build up independent homes.

Expressed in a word, imported labor has hitherto been employed in Hawaii because there was no choice between resident and imported labor, and because when imported labor was tried it was found to be cheaper to continue importing than to establish a resident labor supply. It should not be forgotten that Hawaii possesses the exceptional condition, as compared with most other countries, that the resident labor

supply had to be created. The question remains whether changing conditions in the Territory, chiefly occasioned by annexation, have not made it cheaper in the long run to adopt a policy intended specifically to encourage and foster a resident supply of labor than to continue in sole dependence upon imported workers. In considering this question the following premises may be considered as probably true:

1. Special Federal legislation for the benefit of Hawaiian planters is too unlikely to constitute a conservative business risk.

2. On the other hand, the present tendency of American legislation is toward laws restricting immigration. While the time for extending absolute exclusion to nationalities not at present so treated has passed, there is no probability that any relaxation in existing laws applying to the entire Union will benefit the employing interests of the Hawaiian Islands, while any session of Congress may see legislation enacted that will make it illegal to subsidize emigration companies in other countries or to extend assistance to immigrant labor through Korean banks. There is no object to be gained in evading these facts. The interests of the sugar industry in Hawaii demand that they be faced squarely. Furthermore, immigration restriction based upon educational and financial tests may be made more rigid. Altogether, the balance of probability points toward increasing difficulty in securing imported labor and rapidly growing expense to the planter from this source.

3. Japan appears to have the only large supply of export labor—in the sense of transient labor—likely to prove constant. But the predominance of one nationality of alien laborers upon the plantations constitutes a growing danger to the business interests of Hawaii. If the immigration companies of Japan are abolished, this labor will become quite free, under no obligation to the planters, and less responsible and more independent than at present.

4. Any student of labor conditions in the Orient knows that the standard of living and of wages in that part of the world is rising. The demand for labor for development with the close of the war with Russia, and the industrial expansion that will probably continue with increased rapidity in Japan now that peace has been concluded, are influences quite likely to make Japanese labor more expensive than formerly.

5. Imported labor is migratory labor. Japanese immigrants to Hawaii are perfectly free to move to any new and more lucrative field of employment than that afforded by the plantations. They have no home or other social ties to hold them in Hawaii. A very slight margin of wages will attract them to California, even if the freer industrial atmosphere of the Pacific States, the broader opportunities of a continent, and the mere love of travel and of seeing new lands do not form inducements sufficiently great to carry them farther eastward.

All of these considerations—and probably others could be added—are practically new ones for the Hawaiian planters. Hardly one of them was of weight prior to annexation. And these new conditions are permanent. If they change at all, it is not likely to be in a direction favorable to plantation interests. Only experience can tell whether or not they are as yet of enough importance to constitute a motive for adopting a policy looking for the substitution of resident for imported labor. This is a matter for discussion and experiment rather than for immediate legislative action. Political influences may modify the conditions mentioned, thereby increasing or reversing the motive for fostering resident labor, but with each change the planters themselves must judge which of the two policies suggested will pay them better. But the more farsighted will grasp the tendency of legislation as well as the present status of the law and discount coming conditions as well as those they are actually encountering, shaping their action by issues which they are likely to meet in the future and averting rather than awaiting a crisis, the constant fear of which will always be a disturbing factor in their enterprises.

A clear understanding of the measures required to establish a resident labor supply is important. Probably most planters agree that it would be necessary—

1. That the supply be an abundant one without creating a problem of unemployment leading to emigration elsewhere. This point would soon be attained, because the resources of Hawaii not absorbed by cane culture are very limited. At present there is enough resident labor to supply part of the demand for plantation workers; but not only is it displaced by the temporarily cheaper imported labor, but it finds employment more agreeable than cultivating cane in catering to the needs of those immigrant workers.

2. Resident labor must have an opportunity of gratifying ambitions that rise above mere subsistence. It must be able to provide for old age and even for retirement at some lighter occupation after a physical prime spent in the cane fields. Practically all imported workers are in the flower of their youth. In order to have an equal force of resident laborers of the same age, the total resident population must bear some such relation to the whole number of field hands employed as the inhabitants of a well-settled country do to the men between 20 and 35 years of age or thereabouts. An occupation for this unemployed margin must be discovered.

3. The labor must be attached to the country by other than purely economic ties. It must be bound to a land—beautiful enough to inspire the love of any resident—by sentimental associations. It must be a home-owning, family-raising, loyal, citizen population, whatever its original race, color, or origin. Otherwise it will imitate the Japanese and migrate to the mainland.

The example of the Portuguese shows that such a population can be obtained—at least in moderate numbers. The seeds of a future labor supply already exist in Hawaii, and they simply need fostering and adding to in order to settle the question for themselves; but there is danger of their being choked out and smothered under the débris of all races heaped upon them. Despite a decrease in the Hawaiians from over 70,000 to less than 30,000 during the last forty-seven years, the resident population of the islands has increased from 72,774 to 76,025—or, in other words, the growing elements of the resident population have increased from 2,738 to 46,226. And this has been in the face of the competition of cheap labor imported under penal contracts for the whole period in question—that is, from 1853 to 1900. With systematic importation and settlement of potential citizen labor in Hawaii, such as the Territorial government is attempting under the act passed by the last legislature, establishing an immigration commission, this population unquestionably could be increased more rapidly than in the past, though naturally the same percentage rate of growth could not be maintained.

But it is hardly possible that the mere bringing of immigrants to the country and offering them employment at monthly wages will solve the labor problem permanently. If that is all that is done, they will remain in the status of imported labor and will be simply a new complication of the present situation, for they will migrate elsewhere in search of higher wages, and will prove more expensive than Asiatics without being of greater value to the country or to the sugar industry. They would make one more failure in the history of labor importations from other than Asiatic countries, and that is all. The question of resident labor is not so much a question of the source from which it comes—so long as it forms permanent ties in the country—as it is of its treatment after arrival.

In the first place, the immigrants must have the opportunity and the desire to become citizens, or at least to see their children citizens, of Hawaii. They must adopt the country; otherwise they will not make permanent homes there. In this respect many of the Chinese have proved as good material as the Portuguese, except that the second generation of Chinese is not so ready to engage in manual labor as the second generation of Europeans. Immigrants can have this desire to become citizens only if they are treated as future citizens. Their civil dignity must be respected as well as their legal rights. Plantation discipline, so far as they are concerned, must be firm without being arbitrary.

In the second place, the immigrants must have the opportunity to acquire homes—not a paper opportunity, set forth in prospectuses and official reports, but a real opportunity that produces results in actual settlement. It is not suggested that they be given a quarter

section of land, but that they be given a sufficient holding for their partial support. The interest of the plantations demands that these homes should be so far as possible in their immediate vicinity, for thus the labor of the growing generation is the sooner at the disposal of plantations, and the attachments of habit and ties of family would operate to retain the children in the employment followed by their fathers. These homes, if they include small holdings granted exclusively for residential and agricultural purposes, would afford occupation for the older folk in their declining years, after they were no longer capable or disposed to engage in the more arduous forms of field labor, and the products of their tillage would help to cheapen the cost of living and better the condition of labor, and to increase the incentive to remain upon the land for the coming generation.

A home is an object of ambition for most workingmen, especially those residing in rural districts. Home ownership makes laborers steady and reliable and more apt to recognize the community of interest between themselves and neighboring employers. A laborer's homestead is a place where he can invest his savings, and therefore gives him a motive for accumulation by steady work. Since the abolition of the postal savings bank by the Federal Government, at the time of annexation (a most unfortunate occurrence for the Hawaiian wage-earners), the plantation laborers have had no place to invest their savings. This is especially true of citizen workers, for the Japanese have sent their money home through the banks of their own country which have branches in Hawaii. Sometimes men have left their money in their employer's safe for want of some opportunity to make it productive. This need would be satisfied in part by a system of providing small independent homes for working people.

Of course all these suggestions appear very revolutionary to a plantation manager accustomed to having the full control of his employees in their camps, regulating their hours of rising and retiring, and it would be impossible to carry them out successfully where the plantation discipline of ten years ago still prevails.^a A fundamental change in the attitude of managers toward labor must accompany a change in the character of the labor employed. Something of paternal discipline, inherited from the chief-like relation of the earliest planters to their

^aOn the other hand, some plantation managers, with the active support of their employers, are adopting almost the very measures here suggested to supplement and diversify their present plantation force. Kahuku plantation, on Oahu, has recently acquired control of large tracts of land adjacent to its cane fields for the purpose of settling Portuguese laborers upon them as independent homesteaders; and the Baldwin plantations on Maui, having the largest output of any in the islands, are considering a similar policy. It should be added that large irrigated plantations wholly upon leased lands, like Ewa and Oahu, could not directly provide themselves with a homesteading plantation force, because they control no lands suitable for this purpose.

Hawaiian workmen, and perpetuated by the conditions caused by the penal contracts after Orientals were introduced, still characterizes the methods of plantation administration. This attitude is changing, especially among the younger managers, and the Japanese are asserting themselves in a way to make it no longer politic or practicable where they control the situation. But with resident citizen labor a franker recognition of the individuality and personal dignity of the unskilled worker would be necessary. This might not manifest itself so much in the concrete relations of the employer with his men, as in the attitude of mind that lay behind these relations.

Among the advantages that resident labor offers over imported labor are the following:

1. The supply when once established would be a reasonably certain one. The solution of the labor problem which it affords would be, from the point of view of labor supply, a final solution. The worry and expensive insecurity of the present situation would be done away with.

2. The supply of labor would be more flexible throughout the year than at present. It would not be necessary to carry hands through the dull season at unprofitable work in order to have them on hand during the busy season. This consideration would not affect equally all plantations. But such instances as the case where a plantation manager recently offered to build a stone wall for a neighboring ranch at less than cost in order to keep his hands employed throughout the year show its importance to some planters.

3. The cost of supervision would be less, for labor brought up on or near the plantation would need little instruction. Costly misunderstandings would be avoided.

4. The great expense of importing labor, advancing fares, and administering a central labor agency would be eliminated. The waste of money in costly immigration experiments, like that of the Porto Ricans, would ultimately cease.

5. The necessity for a rigid regulation of wages by a central body would be done away with, and planters would be freer to grade their men according to efficiency, increasing the effectiveness of their labor by the very measures taken to economize its cost.

6. The cost of living would probably fall through the more extensive production of food supplies upon the homesteads.

7. Against a possible higher wage would be counted the lessened cost of plantation quarters, fuel, water, and medical attendance.

8. Resident labor would ultimately become much more intelligent labor than any class of workers likely to be imported. Although their standard of living should also rise, nevertheless the law of rising wages and lowering labor cost of production would, according to the analogy of other industries, in the long run prove true of cane cultivation.

All these considerations are intended to be suggested rather than dogmatically stated, but they rest upon observations made in many tropical countries and after comparing different conditions of sugar production. Only by experiments, not radical and sudden, but gradual and progressive, can their truth be thoroughly tested.

The practical planter will probably ask: Where shall we look for such labor? Certainly not in the United States, where wages and the standard of living are higher than in Hawaii. Not even in the South, which has a race problem that ought never to be added to the multitude of perplexities already embarrassing Hawaii. Probably in the Azores, whose people already know something of Hawaii, whose emigrants would find friends of their own language and nationality in their new home, and whose labor has already proved so satisfactory on the plantations. As a second choice, Spanish Galicia, whose Gallego emigrants have proved the best field workers in Cuba. Possibly in Sicily, whose peasantry possess many excellent qualities as laborers, but also undesirable qualities that might be remedied by considerate treatment and improved manner of living. Even Finland, though a northern country, might contribute thrifty workmen to Hawaii. The fair-haired Portuguese of the Azores, whose descendants are now growing up in the Territory, are said to have been originally of Saxon stock.

There is nothing conclusive in the failure of many attempts in the past to bring immigrant labor from Europe. These attempts were made in the days when Hawaii was ruled as an autonomous state, with laws enacted in the special interest of the planters, and when this immigrant labor competed with docile Asiatics under penal contracts. These conditions have changed, and they never will recur. In none of these attempts was a sincere and systematic effort made to give the laborers homes. If south European laborers knew that they could acquire homes in a genial climate and a beautiful country, have their children educated in good public schools, and be assured of employment sufficient to support them from the start, many settlers would be attracted to Hawaii. Those who did not flock directly to the plantations would ultimately assist in creating a population dependent upon plantation employment for a living.

The exceptional position of the Territory in regard to resident labor is indicated by the following figures showing the population per square mile of Hawaii and of some of the principal sugar-producing islands; also of the islands from which white labor might migrate to the Territory:

	Population per square mile.
British West Indies.....	113.05
Cuba.....	36.58
Haiti.....	126.81
Porto Rico.....	264.35
Santo Domingo.....	33.80

	Population per square mile.
Java	591.
Philippine Islands.....	66.
Azores.....	277.9
Canary Islands.....	127.5
Madeira.....	479.5
Mauritius (a).....	525.6
Hawaii (a).....	23.8

The great sugar-producing islands have the people at home to produce their cane, and if Hawaii is to compete with them she also must have a home population. Otherwise at some time in the future a crisis may arise disastrous to her great industry.

LAND AND SETTLEMENT.

The public lands of the Territory of Hawaii comprise about 1,720,000 acres, of which about 500,000 acres are barren and inaccessible mountain tracts of no value for either tillage or grazing, and approximately 1,000,000 acres are forest or grazing lands, of which possibly 10 per cent may ultimately be brought under cultivation. The remaining land—some 220,000 acres in extent—is mostly available for cultivation, though portions of it are dependent upon water supplied from adjacent tracts. A large share of the best lands is now under lease to plantation companies and already under cane. Public lands sold to homesteaders bring an average price of from \$10 to \$15 an acre, while grazing lands are sold for as low as \$1.25 an acre. Private sugar lands are held at from \$25 to \$65 an acre, and fruit lands planted in pineapples, within marketing distance of Honolulu, have sold for as much as \$250 an acre.

The public lands are vested in the Territory of Hawaii, which enjoys the revenue derived from their rental and sale; but the land laws can be amended only by act of Congress. The present land laws were passed in 1895 and confirmed by the Federal Government at the time of annexation. Under these laws the land is classed as agricultural, pastoral, pastoral-agricultural, forest, and waste land, of different grades. The act provides three principal methods of acquiring public lands—the homestead lease, the right-of-purchase lease, and the cash freehold. Lands can be acquired only by citizens or holders of a certificate of declaration of intention who are over 18 years of age, who are under no civil disability for any offense, and are not delinquent in the payment of taxes.

The homestead lease permits any qualified person who is not already the owner of land in the Territory other than "wet" (taro or rice) land, and is not an applicant for other land under the act, to acquire homesteads not exceeding in extent 16 acres of agricultural or 60 acres of

^a Labor partly imported.

pastoral land upon paying an application fee of \$2 and a certificate fee, upon issuance of the lease, of \$5. The lease runs for nine hundred and ninety-nine years, but is subject to a number of conditions, among which are the following: The holder must make the land his home, building a house thereon within two years, and having not less than 10 per cent of the area under cultivation within six years. The holding is liable to taxation, the same as a fee-simple estate. It can not be devised, but descends to the natural heirs of the holder; neither can it be mortgaged or attached under any process of law. Neither can it be sublet either in whole or part. No rental is charged by the government for the land, and it is subject to no other obligations than the original fees, amounting to \$7 in all, and the taxes assessed against it in common with other agricultural holdings. The land may be surrendered to the government by the occupier, who receives the value of his improvements when the same is received by the government from a new tenant.

This method of quasi alienation was devised for the benefit of the natives, and in theory it is difficult to see how the law could be improved. The holder is protected from his own imprudence in burdening his estate with debt, and assured a home for himself and his immediate descendants during occupancy. He can not lease his holding to Asiatics, thus living indirectly upon the labor of another. The number of homestead leases appears to be increasing, having risen from 16 in 247 alienations during the eighteen months ending with June 30, 1903, to 61 in 154 alienations during the eighteen months ending December 31, 1904.

Right of purchase leases are granted for twenty-one years to applicants having the same qualifications as those for homestead leases, except that a person already holding land may lease under this system enough to bring the area of his holding up to the maximum allowed by the law under this form of tenure. This maximum is 100 acres of first class or 200 acres of second class agricultural land, or 600 acres of first class or 1,200 acres of second class pastoral land. Where the land is of a mixed character an intermediate area may be assigned. The annual rental is 8 per cent of the appraised value, payable semi-annually. The lessee must maintain his home on the leased land continuously from the end of the first year to the end of the fifth year of this term, and must have under cultivation 5 per cent of his holding at the end of three years, and 10 per cent at the end of five years, and must maintain on agricultural land an average of 10 trees to the acre. Pastoral land must be fenced. The interest in a right of purchase lease is not assignable except with the consent of the commissioner of public lands. At any time after the third year of leasehold the lessee can obtain fee simple title to his holding by paying the appraised valuation, as set forth in the lease, providing he has reduced to culti-

vation 25 per cent of the area and has performed the other conditions of the lease. During the eighteen months ending with December 31, 1904, 84 right of purchase leases were issued for an aggregate area of over 5,738 acres, having an appraised valuation of \$16,027.

Cash freeholds are sold at auction to the highest qualified bidder, at the appraised value as upset price. The qualifications of purchasers are the same as those under right of purchase leases. Twenty-five per cent of the agricultural land must be under cultivation before the end of the third year, and the freeholder must maintain his home on the premises from the end of the first to the end of the third year in order to perfect title.

Six or more qualified persons may form a "settlement association," and apply for cash freehold or right of purchase leases in one block. The principal agricultural settlement made in Hawaii by Americans recently has been through a settlement association acquiring cash freeholds. Public lands may also be sold in exceptional instances, with the consent of the governor, for cash. Such sales are at public auction and are for tracts not exceeding 1,000 acres in extent. These are called sales under "special agreements." The commissioner of public lands is also authorized to lease land under what are known as general leases, in tracts of any extent, for a term not exceeding five years in case of agricultural and twenty-one years in case of pastoral land. If land leased by error as pastoral land is subsequently found to be available for cultivation, it may be resumed by the government.

Much of the public land of the Territory is held under long leases at very low rentals by the sugar plantations and graziers. These leases were issued under the monarchy before the present land law was enacted. It should be placed to the credit of the Republic, which is sometimes called a "planters' government," that it abolished this former system, under which wealthy private enterprises were often able to profit greatly at the expense of the public. The present revenue of the Territory from these general leases is over \$100,000 per annum, and the total revenue from the public lands, exclusive of sales, for the eighteen months ending with December 31, 1904, was \$182,366. As the land sales in the aggregate returned \$43,008 the total land revenue of the Territory was \$225,374 for the period.

The amount of land held under general leases—for the most part by sugar plantations and stock ranches—is very large. The plantations hold an area of slightly over 421,000 acres directly from the government and sublease from other government lessees an unknown amount. Besides, they have water rights covering extensive tracts of forest and mountain country. However, the arable portion of the lands leased is comparatively small, and some of the largest tracts are entirely forest and lava country, used only for grazing the plantation stock, obtaining fuel, and—what is of most importance—as catchment

areas for the water heads. One holding of 95,000 acres has about 3,000 acres under actual cultivation. Still the return that the government gets from this property—especially in case of leases made under the monarchy—is quite inadequate. The tract just mentioned is appraised at \$750,000 freehold value, and is rented to a plantation for \$2,000 per annum. On the other hand, there are small tracts of rice land leased to Chinese where the rental is forced up to the highest point. Less than 16 acres in one case rent for \$545 per annum, and 6½ acres rent for \$380 per annum.

The administration of the public lands of Hawaii has improved in recent years, and a much more liberal policy toward intending settlers has been adopted. Still it is a matter of common complaint among certain classes in the Territory that technical difficulties, the apathy of officials, and an unsympathetic attitude on the part of the propertied people toward an increase of small holdings, make it very difficult for persons without influence to obtain homesteads or freeholds. It should be borne in mind, however, that even the most fair and honest administration of the territorial land office would be subject to criticism by people coming from the United States, where the large areas of unoccupied land and the traditionally liberal land policy have rendered unnecessary many of the precautions and restrictions required in Hawaii. These complaints bear a curious resemblance to those made by land seekers in Australia, where climatic conditions, the comparative scarcity of well-watered arable land in accessible localities, and the land monopoly established by the early settlers, have occasioned a state of affairs—though with less justification from nature—similar to that prevailing in Hawaii. There is an inevitable and unavoidable conflict of interests in Hawaii between the sugar planters and the small farmers. The plantations are so largely upon leased government land, and depend for water sources or other privileges upon the use of public property to such an extent, that their condition would in all probability be rendered worse by a growing population of independent freeholders and small cultivators, who would compete with them for lands when their leases were renewed, demand the division of large holdings, put up rentals by competitive bidding, and use the franchise to control local affairs in their own interest. This division of interests creates an attitude of mutual distrust. On the one hand, the present or prospective small settler suspects the plantation people of systematically impeding his efforts to obtain a home and an independent position as a landowner, while the latter are in many cases equally convinced that an increase of settlers will create a half-indigent, dissatisfied, and factious population, hostile to the natural business enterprises of the Territory, and inclined to ruin the prosperity which they do not share.

SMALL FARMING.

Whether or not small farming is or can be made profitable in Hawaii is a matter of controversy. No question would seem at first glance more easily settled by experiment. Indeed, both parties point to examples of success and failure in farming enterprises to prove the justice of their position. But agreement is impossible, because the controversy is dictated primarily by considerations apart from the question itself.

The plantation system has been established in Hawaii in response to economic conditions. With cheap Asiatic labor at the disposal of employers, it is the most profitable method of agricultural production. The same was true of our Southern States prior to the civil war, and it would be true of the whole Union to-day if the people of the country were divided into two races, of which the more numerous possessed a lower political, civil, and industrial status than the other. For instance, the admission of Chinese coolies to the South would check the growing subdivision of farm land among small holders and reestablish the big plantations. In a word, while climatic conditions may have a bearing upon this result, they are not the essential cause that determines whether agriculture shall be carried on by wholesale or retail methods. But it is easy to pass from the economic to the climatic argument. It is not agreeable to base the justification of an industrial system upon the inferior status of labor. We can escape this unpleasant position by shifting the responsibility to nature, which has established the material conditions of agriculture in these islands. But if we base our argument that cane raising is possible only under the plantation system upon such general grounds as climatic necessity, consistency urges us to extend this argument to other forms of agriculture. All crop raising depends equally upon climate. The same wind does not blow hot upon the cane fields and cold upon the potato patch. So, although the fact that different kinds of agriculture are carried on under different conditions in Hawaii is of course recognized, there is a disposition to defend the plantation system for cane raising by attacking small farming in principle.

This sentiment, which, though by no means universal, is widespread among residents of Hawaii interested in sugar plantations, is reenforced by the consideration that small farming if successful means ultimately keener competition for land than at present (as was mentioned in a preceding paragraph) and might impair the political predominance of the sugar interests. All these influences are at work to create an unconscious sentiment among a large and important section of the white population adverse to diversified agriculture and an increase of small freeholds. It is claimed in Hawaii that there is an avowed and sys-

tematic effort to discourage American immigration. This charge was made by implication by the Honolulu Merchants' Association in correspondence with the Planters' Association in 1904, and was subsequently published in the Honolulu papers. The representative of an American daily paper, who visited Honolulu some years ago in order to write up the islands with a view to promoting immigration, was informed frankly by certain business organizations in that city that they were not prepared to encourage such a movement of Americans to the islands. Although some prominent sugar people are quite out of sympathy with this attitude—and the history of the anti-American sentiment, so far as it now exists, goes back to a date prior to the annexation of the Territory and is involved with political and international jealousies now dying out—the feeling that existing industries might be injured by white immigration is still strong.

While the question of the practicability of small farming in Hawaii must be judged on its own merits, yet in considering the experience of the pioneers whose example is now quoted it is only fair to refer to the open or covert hostility of plantation interests to such undertakings. Without a doubt many planters were and still are sincere in discouraging prospective farmers. They have seen failure after failure among those who have sought to make a living by cultivating small holdings. Some men who are at present managing plantations deserted small farms, in which they had sunk all their money, in order to become field bosses or mechanics upon plantations.

Planters are to be found on all the islands who are continually experimenting with diversified crops, and are not deterred from making new trials by years of successive failure. Some of the largest sugar factors have expended large sums, in fact a private fortune, in assisting small farmers in coffee and fruit production, only losing their money for the pains. In fact, it is only just to conclude that the plantation interests fear not so much the small farmer as a small farmer—as the unsuccessful settler—the man who has made a failure and becomes a center of discontent and agitation in a community so small that every person's influence has exceptional value. And it is safe to say that if small farming is ever proved an unqualified success in Hawaii, such opposition as exists at present will cease. For the successful farmer will be a conservative rather than a radical element in the community. Previous mention was made of the fact that the Pinkham report was adverse to small farming in Hawaii. The committee interviewed 161 small landowners of the 1,200 or thereabouts reported by the census of 1900. Of this number 10 stated that they were successful, 129 had made a failure, 22 had made a bare living, 81 partly supported themselves by working for others, 21 leased their lands, 3 had lost everything, and 12 had lost in the aggregate \$19,194.90. The committee

found that many of the homesteaders were more or less dependent upon the sugar plantations for support. The planters leased 16,363 acres from 1,416 homesteaders; they employed 338 homesteaders, and they purchased cane from 494 others. The critics of this report claimed that the interviews were not impartially taken; that successful farmers were passed by without being questioned and unsuccessful ones sought out for purposes of information. One of the leading Honolulu papers published reports from a number of successful farmers. A newspaper published on one of the other islands stated: "Kauai has not many independent agriculturalists, but we call to mind, without mentioning names, a few who have lived on their own little holdings and have been able to make a respectable living through a long course of years, and who have raised families and have educated their children in as thorough a manner as farmers on the mainland are able to do."

This last statement seems to the writer a very fair one. Some farmers, favorably situated with reference to markets, with fairly fertile holdings, who have understood the country and the conditions of tropical or semitropical agriculture, and have persevered through the many initial discouragements which such enterprises encounter, have made a success of small agricultural undertakings. Although this class is not numerous, it does exist; and it shows that it is not impossible for farming to be made a success in Hawaii. Almost all the recent changes in that country have been favorable to the small freeholder. The land laws were reformed by the Republic in 1895. Increasing facilities for marketing products place Honolulu and the Pacific Coast nearer to his doors. It is only since the abolition of the monarchy that wagon roads have been built through most of the agricultural districts. A Federal experiment station and a Territorial department of agriculture have been established since annexation, and systematic experiments with crops, fertilizers, and irrigation methods, and the scientific study of local pests and plant diseases, have been begun. It is almost twice as easy for the second farmer in a new district to succeed as for the first one, and with the increase of settlement many of the difficulties that have hitherto been insurmountable for pioneers will be obviated. Insect pests that breed chiefly in uncultivated lands decrease with the growth of the cultivated area. Experience teaches how to treat the particular soils of each locality, and what crops are best suited for the peculiar climatic or marketing conditions of a district. Above all, the social support of the farmer is strengthened with every increase in his numbers. Where he is an isolated settler of his class in a community disposed to discourage or ridicule his endeavors, he is far less likely to succeed than where he is backed up by the local sentiment of a number of his fellows, and encouraged by the record of their success. A California farmer who had taken

up government land in Hawaii and appeared to be prospering, said: "When we came here people in the islands said that nothing would grow on these lands. We had our blue times, and had to learn by experience how to treat the soil, which is very acid. Some of our first crops failed entirely. But now we have found out how to handle our land and what to grow, and are doing well. It will require men of the true pioneer spirit to settle these islands—men who are used to failures and not discouraged when their first attempts don't succeed."

An account of a typical colony of American farmers settled in Hawaii presents the possibilities of small farming under what are probably as favorable conditions as are offered in the Territory. In 1898 a tract of land was opened for settlement by the government in what is known as the Wahiawa district, upon the central plateau of Oahu, within less than 20 miles of Honolulu. There was at the time no cultivation in the vicinity, the occupied land being used for grazing. A settlement association was formed by 13 California families to take up this land. As they did not have means enough to establish themselves in Hawaii, a company was formed to finance the association with \$15,000 capital. The land cost from \$3 to \$5 an acre, and was allotted in tracts of from 50 to 100 acres. It cost about \$15 an acre to clear and subdue the land, and an arrangement was made by which the nearest sugar plantation, in return for water privileges, developed sources belonging to the colony so as to provide the members without further expense with irrigation. The original plan of the colony was to supply the San Francisco market with fresh vegetables during the winter season. Fair crops were raised the first year, and the members of the association made money on some consignments, but the second year the insects cleaned out everything planted that would have been salable in an outside market. Upon the whole, vegetable raising proved a failure. At present the colony devotes most of its attention to raising pineapples, and a local cannery has been established. Some of the original settlers, who were speculators, have sold out and left, and one or two lease their land. Seven of the original settlers are still on their holdings. Of the 22 white persons in the colony not one has suffered from illness incurred in the islands, and there has not been a death among the settlers. Their land now sells for as much as \$250 an acre and leases for \$20 an acre per annum. Comfortable homes have been built, groves, orchards, and shade trees planted, a school established, and the region appears as prosperous as any of the more favored farming localities of California. On the other hand, a good deal of the manual labor of the colony is done by Asiatics. The school, which for a few years was attended exclusively by white children, has a majority of its pupils from Chinese and Japanese families. Without the cheap labor imported by the plantations, the colony could not pro-

duce and can pineapples as profitably as at present, and possibly could not support itself with its present crops.

In the Kona district of the island of Hawaii there is a combination of climate, scenery, and good soil in places that is unrivalled elsewhere. White settlement, including the Portuguese under this term, is said to be increasing. Parts of this district, although raising no sugar cane, have as comfortable homes and as prosperous an appearance as any American countryside. But the Japanese do most of the hard work here as well as at Wahiawa. Likewise upon the slopes of the great extinct volcano of Haleakala and around its northern base there is an abundance of good agricultural land, occupied mostly by Portuguese and citizen Chinese settlers, with one or two American and Hawaiian farmers. Not far from Hilo, upon the island of Hawaii, there are considerable settlements of small farmers, including a number of Austrians and one or two Russians. Their holdings may not prove especially profitable, but the occupants appear to make a living not inferior to that enjoyed by many farmers in the United States.

Mention was made of the fact that the small farm and the plantation are in a sense competitors. They represent two different ways of conducting agricultural operations that are to a degree antagonistic to each other. The plantations try to absorb the small farmers, and the small farmers to break up the plantations. So long as there were coolie contracts the latter had all the advantage. Even now, with Japanese and Korean labor abundant, they are greatly favored. But should this labor cease or be greatly restricted, or should wages and other conditions of employment be leveled up to those prevailing in California, an advantage might be given to the small holder. Quite apart from climatic considerations, it is doubtful if cane could be successfully raised under the plantation system with white unskilled employees. The industry might be too precarious to attract capital. And the nearer the Asiatic approaches the white man in his demands as a laborer, the more difficult it will be to maintain the plantation system.

Therefore it is a matter of some interest to ascertain whether a population of small farmers could make a living in Hawaii at raising sugar cane. If the plantation system should at any time become impracticable through the absence of cheap and docile labor, would the present industry of the Territory become impossible upon a profitable basis? The testimony of two small farmers now raising cane is here given, and can be compared by American farmers with the results they obtain from other crops in the United States.

Farmer A has a farm of about 40 acres on the island of Hawaii. He keeps a team of horses, a yoke of oxen, about a dozen head of other cattle, about a dozen hogs, chickens, etc., for which he raises feed.

About one-fourth of his holding—or approximately 10 acres—is in sugar cane, and the cost and receipts per acre were as follows:

COST OF PRODUCTION AND RECEIPTS PER ACRE OF SUGAR CANE FOR A TWO-YEAR CROP IN A TEN-ACRE TRACT IN HAWAII.

Item.	Expense.	Receipts.
Plowing and harrowing	\$6.00	.....
Seed	36.00	.....
Planting	5.00	.....
Fertilizer and fertilizing	15.00	.....
Cultivation	50.00	.....
Taxes (two years)	2.00	.....
Interest (two years)	25.00	.....
51 tons cane at \$4.53 a ton .....	.....	\$231.03
Total	139.00	231.03

^a This item was unusually large, as a new kind of cane was introduced. Ordinarily it would be less than \$20 per acre, and if the tops were planted after a second crop, still less.

This represents a clear profit of \$92 per acre for two years, which would be increased to about \$150 an acre upon the ratoons. The price paid for the cane was upon a sliding scale, based upon the price of sugar, and the receipts were unusually low on account of the depressed condition of the sugar market at the time the cane was sold. Furthermore, the mill, owned by an independent corporation, made nearly treble the profit of the farmer on every ton of cane. This farmer works regularly in the fields, and all his cane was raised by white labor, except that some Hawaiians were employed in clearing land and planting.

Farmer B has a small farm about 8 miles from a sugar mill upon the island of Oahu. As he had his own seed (the cost of which is not included in the estimate), and cut, loaded, and delivered his own cane at the mill (while in case of farmer A this was done by the plantation), the figures do not correspond in detail. Farmer B paid \$6 an acre for planting, \$7.50 for fertilizing, \$20, "or actually a trifle less than this," for plowing and cultivating, and the same amount for irrigation. As he had no roads in his field, and the cane therefore had to be carried some distance to the wagons, the cost of cutting and loading was 50 cents a ton. His yield was 40 tons of bamboo or 65 of Caledonia cane to the acre, or an average yield of something over 50 tons for the entire crop. He sold his cane delivered for \$8 a ton. His actual profit was more than \$300 an acre on a two-year crop, or \$150 an acre per annum. The mill made a net profit of about \$4 a ton on the cane. This farmer employed Oriental labor.

No special effort was made to obtain the profits of small cane farmers, the figures given having been secured in connection with wage investigations or being voluntarily presented; and therefore it is impossible to say whether or not a more exhaustive investigation of the subject would give equally favorable results. But farmers have

raised cane profitably in New South Wales and some parts of Queensland, with less protection from foreign competition than that afforded the planters of Hawaii. And it would appear that in at least some instances small farming might prove successful in the latter country, even if confined to the production of the crop upon which the prosperity of the Territory is at present based.

THE FIELD OF EMPLOYMENT.

Although a majority of the workers in Hawaii are engaged in cane planting, the sugar industry does not exhaust the field of employment. Stock raising and minor agricultural pursuits, transportation, and a few urban occupations purveying chiefly to the daily needs of the people, engage the service, in the aggregate, of many wage-earners. In the present section of the report these industries will be reviewed, the sugar plantations, as is due to their greater importance, being first considered.

THE SUGAR INDUSTRY.

The number of sugar plantations in Hawaii in 1905 was 53, of which 8 were exclusively cultivating corporations, whose cane was ground at the mills of neighboring companies. Three plantations operated two mills, one independent milling company was grinding the cane of a cultivating planter, and one mill was standing idle, so that the number of sugar factories in the Territory was 50, of which all but one were producing sugar. One establishment refines its product in the process of manufacture. Besides large planters and incorporated companies, there are several hundred small planters and homesteaders who raise cane which they sell to the mills. All the plantations are upon the four largest islands. The total crop for 1905 is estimated at 400,000 tons of sugar. The crops for the ten years ending with October 1, 1904, are shown in the following table:

TONS OF SUGAR PRODUCED IN THE HAWAIIAN ISLANDS FROM 1895 TO 1904.

[From the Hawaiian Annual.]

Island.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.
Hawaii.....	61,643	109,299	126,736	91,606	117,259	115,224	134,618	121,295	170,665	122,865
Maui.....	27,736	39,097	41,047	45,033	54,389	57,347	58,349	56,726	84,776	77,985
Oahu.....	17,433	25,782	28,929	34,181	45,820	53,625	99,534	107,870	121,065	102,019
Kauai.....	42,816	51,650	54,414	58,594	65,359	63,348	67,537	69,720	61,484	64,606
Total.	149,627	225,828	251,126	229,414	282,807	289,544	360,038	355,611	437,991	367,475

Within a decade the sugar production of Hawaii has expanded from 150,000 to over 400,000 tons. The largest per cent of increase has been on the islands of Maui and Oahu, where the large irrigated plantations recently opened are situated. Hawaii, where cane is raised almost

entirely in a country supplied with ample water by natural rainfall, still remains the chief sugar-producing island by virtue of its greater area; but the following table shows that in proportion to the acreage cultivated it produces less than one-half the sugar raised in Oahu.

The acres of cane cut and sugar yield of plantations per acre, classified by islands and as irrigated or unirrigated, for 1902 and 1903, the latest years for which figures are available, are given in the following table. These returns are not absolutely complete, as they were given by 48 plantations in 1902 and by 52 plantations in 1903, but they are representative.

ACRES OF CANE CUT AND YIELD OF SUGAR PER ACRE, BY ISLANDS AND FOR IRRIGATED AND UNIRRIGATED LANDS, 1902 AND 1903.

	1902.		1903.	
	Acres of cane cut.	Pounds of sugar per acre.	Acres of cane cut.	Pounds of sugar per acre.
Hawaii.....	39,531	6,064	48,750	7,004
MauI.....	11,920	7,499	14,625	11,593
Oahu.....	15,183	14,196	16,684	14,513
Kauai.....	14,320	7,774	13,291	9,252
Irrigated.....	38,987	11,681	42,097	12,377
Unirrigated.....	41,967	6,015	51,253	6,927
Total.....	80,954	8,744	93,350	9,385

While the expense of raising sugar cane is greatly increased by irrigation, the yield per acre is seen to be about double that of unirrigated plantations. About one-half of the whole area under cultivation is cut each year; so it is safe to conclude that, including all the plantations in the Territory, about 185,000 acres were under cane in 1903. This area has been increased somewhat since that year, and will probably reach 200,000 acres when irrigation works now being constructed are completed.

The financial standing and the profits of the Hawaiian sugar industry for the last three years are shown in the following table:

FINANCIAL STANDING AND PROFITS OF THE HAWAIIAN SUGAR INDUSTRY, 1902, 1903, AND 1904.

	1902.			1903.		
	Profitable.	Unprofitable.	Total.	Profitable.	Unprofitable.	Total.
Plantations reporting...	23	25	a 48	40	12	b 52
Crop—Tons of sugar....	240,345	106,982	347,327	385,093	36,185	421,278
Capital stock.....	\$26,454,755	\$37,486,895	\$63,940,650	\$54,815,275	\$10,063,657	\$64,878,932
Profit.....	\$2,860,835		\$835,028	\$5,051,463		\$4,556,490
Loss.....		\$2,025,807			\$494,973	
Profit per ton.....	\$11.90		\$2.40	\$13.12		\$10.82
Loss per ton.....		\$18.93			\$13.67	
Dividends paid.....	\$1,749,520	\$8,000	\$1,757,520	\$1,555,653		\$1,555,653
Dividends paid—per cent.....	6.61	.02	2.75	2.83		2.40

a Ten plantations, with a total crop of 13,899 tons, not reporting.

b Four plantations, with a total crop of 4,485 tons, not reporting.

FINANCIAL STANDING AND PROFITS OF THE HAWAIIAN SUGAR INDUSTRY, 1902, 1903,
AND 1904—Continued.

	1904.		
	Profitable.	Unprofitable.	Total.
Plantations reporting.....	39	5	44
Crop—Tons of sugar.....	327,380	15,642	343,022
Capital stock.....	\$39,435,275	\$5,996,288	\$45,431,563
Profit.....	\$4,902,943		\$4,902,943
Loss.....		\$246,921	\$246,921
Profit per ton.....	\$14.65		\$14.65
Loss per ton.....		\$15.62	\$15.62
Dividends paid.....	\$1,937,490		\$1,937,490
Dividends paid—per cent.....	3.35		3.35

* Five plantations, with a total crop of 9,769 tons, not reporting.

Although during the most profitable year of the three for which figures are given the average earnings of the plantations were less than 3 per cent upon their capital stock for the shareholders, yet their real earnings appear to have been double that amount. The surplus was in many instances absorbed by development work and improvements, and in some cases used to pay bonds or debts due to agents for advances made during less profitable years. It should be remembered that the above are average figures for all the plantations reporting. Individual plantations may have earned as high as 30 and 40 per cent upon their capital, while others, although not losing, barely held their own. In fact, this wide variation in earnings, not only upon different plantations, but upon the same plantation during successive years, irrespective of the earnings of neighboring plantations, is characteristic of the industry in Hawaii. Climatic conditions are so erratic, even over the smallest areas, that one plantation may be afflicted with drought when a neighboring plantation has abundant rainfall; and of two adjacent places one may suffer from an incursion of insect pests while the other remains comparatively free from them.

However, in considering all figures showing earnings in relation to capitalization upon Hawaiian plantations, certain qualifying facts need to be borne in mind. Some plantations are greatly overcapitalized, their stock having been doubled or trebled during the boom immediately following annexation, without any corresponding increase in material assets or earning capacity. On the other hand, a compensating factor is to be found in some instances in the gradual increase of plantation property, through clearing new land, developing water sources, rebuilding houses and machinery, and constructing roads and bridges, paid for out of operating funds or from undistributed profits, for which no stock or bonds have been issued. The enormous dividends paid by a very few plantations are to be explained in part by such a growth of material assets not represented in increased capitalization. In a word, while many of the plantations are overcapitalized, some of them are said to be undercapitalized. Nevertheless, when a balance is struck

between the two, and an average capitalization for the whole sugar industry of the islands arrived at, it is probable that the paper value of the property is considerably above the real value, and that dividend payments can not be accepted unconditionally as a true gauge of legitimate profits.

However, these facts do not affect the validity of the table last given, which shows net earnings without reference to capitalization, and indicates that when the price of sugar is low more than half the plantations of Hawaii, which represent, however, less than one-third the total tonnage, are conducted at an absolute loss. Such plantations must recoup themselves for these unfavorable years during seasons when the crop is large and the price of sugar high, or discontinue business. And some plantations are known to be losing money at present, although the price of sugar is as high as it is likely to be at any time in the future. In 1904, which upon the whole may be considered as an average year, although some of the largest plantations lost a considerable portion of their crop through the leaf hopper, the 48 plantations reporting earned slightly over 7 per cent upon their capitalization. These were not representative average earnings, as profits were partly used to repay debts incurred during the two poorer years preceding and did not go to the shareholders without this deduction. But then this 7 per cent is upon a capitalization supposed to be inflated. How far these two factors compensate each other, and how nearly 7 per cent represents the normal earnings of the real investment in Hawaiian plantations, it is impossible to say. Of course fortunate investors have made many times this rate and others have lost their all in speculative plantations. Like every other industry the present sugar business is found in the hands of the men who have made a success of their undertakings while the many who have failed are forgotten. In a small and insular country like Hawaii the history of the fortunate is known to everyone while the unfortunate usually insure themselves oblivion by leaving the Territory. This fact has thrown something of a glamour over the plantation business, the profits of which are probably overestimated rather than underestimated by casual visitors and even by many residents of the islands. Still the strenuous effort made to render productive every acre of the country where cane can be raised indicates that the Hawaiian plantations generally make generous returns to their owners.

In considering the profit which the sugar industry brings to the community as a whole, it is necessary to look beyond the reports of the plantations themselves. These show quite accurately what the small shareholder and the nonresident or inactive investor may expect as a return upon his plantation stock. But they do not show the full profits of the men possessing in many instances the controlling interest in these corporations. The supplies of the plantations are pur-

chased and their sugar is marketed by sugar factors, who are organized into a number of powerful companies in Honolulu. These companies take a profit on nearly all the freight that passes the plantation boundaries in either direction. Their commissions, which are very liberal, are collected in bad as well as in good years. Moreover, they are the plantations' bankers, and have the pickings of their financial transactions. In addition to the plantation agencies, there are transportation companies, both land and marine, and irrigation companies, all living off the plantations and taking their profit in lean years as well as in fat ones. The stock of all these companies is owned by the men who are most heavily interested in plantation stocks. These inside investors are therefore often making a comfortable income out of the sugar industry during years when the outside investor is receiving no return upon his capital. They can afford to have their sugar dividends passed so long as the dividends upon their railway, steamship, or agency stock continue to come in regularly. Thus the compensation that capital receives from the industry is greater than appears on the surface. Probably there is never a year when the plantations do not pay the running expenses of the people of the Territory.

Unlike many tropical islands, the resources of Hawaii are largely owned by persons residing in the country. The nonresident landlord is not a serious evil in the Territory. An inspection of the addresses of the shareholders in several of the largest corporations, mercantile and manufacturing as well as sugar, showed that a large majority of the stock was owned by residents. The attractive climate and scenery and pleasant social conditions prevailing in Hawaii have contributed to keep the wealthy classes at home, or at least induced them to maintain a legal residence in the islands.

The statistics of the Territorial treasury show that of 574 incorporated concerns, with a total capitalization of \$187,637,125, registered in the islands, 562, with a capitalization of \$123,022,625, are domestic. Most of the foreign capital is owned by five investment companies and two fuel-oil companies, the latter alone having over \$10,000,000 capital, doing business in Hawaii. One hundred mercantile corporations, with a capital of \$12,249,150, are local, as compared with five establishments, with an aggregate capital of \$452,000, incorporated elsewhere. Of the shipping and transportation companies, 17, with a capital of \$13,842,000, are Hawaiian, and 3, with a capital of \$2,650,000, are from outside the Territory. There are 64 purely Hawaiian companies interested in raising and manufacturing sugar, whose aggregate capital is \$61,388,000. The outside sugar corporations doing business in Hawaii number but 6, with a total capitalization of \$24,500,000. These are all Californian concerns, and a large amount of their capital is owned in Hawaii. The sugar industry and the lines of business directly dependent upon the sugar industry and drawing profits from

it are therefore to a great extent under the control of residents of the Territory. Some of these people are aliens, as is natural in a foreign country recently incorporated in the Union, but they are in most instances permanent residents of the Territory or of the United States, and their social and personal as well as their business interests are fixed in the islands.

The field of employment afforded by the sugar industry is larger in proportion to the area under cultivation than in most other agricultural operations. Including the milling force one laborer is engaged for about every 4 acres under crop. The rapid growth in the number of employees is realized when we consider that it has risen from 24,653 to 48,229 since 1897, the year preceding the Spanish-American war.

All the wage statistics for unskilled plantation labor presented in this report give a lower rate of pay than the average for the year 1905.^(a) On May 1 of that year, after most of the figures here presented were gathered, the planters made a uniform advance of the wages of field hands and the lower-paid classes of labor through the Territory, amounting to \$2 a month. This was an average increase of about 12½ per cent. It places field wages somewhat above the rate that prevailed in Hawaii in 1902. On the other hand, there has been a decrease in the number of contract cultivators, whose earnings are usually above the wages of field hands. This decrease was partly due to an easier labor market, which made it less difficult for planters to hold their men in the plantations, and partly to the uncertainties attending the crop during 1903 and 1904, when the ravages of the leaf hopper and unfavorable weather made the returns from these contracts extremely uncertain, and therefore made the men unwilling to accept them. For the immigrant laborer has no capital to risk, like the large employer, in cane raising, and though he receives an advance sufficient to pay his living expenses during the time that he is raising a crop, unless he makes some profit he can not meet his obligations to the immigration companies and the other debts that he incurs. Upon at least one plantation Japanese laborers made the abolition of the cultivation contracts one of their demands in a strike. However, the figures of the present report show that where these agreements have been retained, as they have upon many of the large plantations, laborers are earning more under them than where they work for day wages.

No important modifications have taken place in the form of the cultivation and planters' contracts since 1902. They are described in detail in the report for that year. The amount of cane raised by homesteaders and sold to the mills upon the island of Hawaii, where there is natural rainfall without the necessity of much irrigation, appears to be slightly increasing. On one representative plantation having 6,859

^a For plantation wages see Table I.

acres of cane tributary to its mill, 800 acres were out under cultivation contracts and 568 acres were owned and cultivated by homesteaders. From \$3.50 to \$4.50 a ton was paid for cane. Upon another plantation of about the same size one-third of the cane ground at the mill was raised by small planters, most of whom were said to be Japanese, leasing from white and Hawaiian homesteaders. They were paid \$6.50 a ton for their cane delivered at the flume. Upon another plantation, producing in normal years nearly 20,000 tons of sugar, more than half the cane is raised by small planters. The manager of another plantation said: "Our homestead cane is increasing. But the homesteading class has little capital and has to pay interest. We advance them fertilizers, but no money. There are 700 acres of homestead land in the crop for 1905, and for 1906 there are 336.27 acres of plant and 559.61 acres of ratoon. We harvest the cane, the homesteader receiving a net price for his crop standing; but if the cost of harvesting exceeds 60 cents a ton, we charge the excess to the homesteader. Besides the homesteaders there are a number of independent planters occupying plantation land who have an area of 434½ acres in cane for 1905 and about the same amount for 1906."

One difficulty with the homestead system is that the small cane raisers can not work harmoniously together, and therefore have to depend upon an independent corporation to grind their cane. The "Portuguese Mill," at Hilo, was started as a homesteaders' mill, depending entirely upon cane bought from the small farmers in the vicinity of the village, but it was a failure so long as the original plan was adhered to. All the homesteaders wanted their cane ground at the same time, and it was found impossible to adjust mill operations so as to satisfy more than a small minority of the cane raisers. A sugar mill can not be run like a cheese factory, because it can not handle each day's product the day it is delivered. But the sugar mill with land enough of its own to insure a supply of cane can use its surplus grinding capacity to work up the crop of small landholders in the vicinity. The only difficulty with this arrangement is that the homesteader is obliged to accept such terms for his cane as the mill is inclined to offer.

The hours of labor and general conditions of employment on sugar plantations are the same as in 1902. The rates of wages in different occupations are shown in the general tables. A ten-hour day, beginning with sunrise, is the rule.

All the employees are supplied with houses and fuel. The value of lodgings for common laborers is estimated at about a dollar a month. The rental value of cottages occupied by white employees is mentioned under "Cost of living."

Men are occasionally fined, but no cases were discovered where this system has developed into a serious abuse. It came to light occasion-

ally when a list of grievances was presented by strikers. On one of the smaller plantations the following list of fines, for March, 1905, was taken from the books: For breaking wagon through negligence, \$5; for refusal to do work as ordered, \$0.25; for trespass, \$0.50; for cutting harness, \$2; for insubordination, \$1; for neglect of duty, \$0.50; for neglect of duty, \$1. The two fines for injury to property, aggregating \$7 of the \$10.25, were said to have been inflicted because of gross or malicious neglect, where the loss to the plantation was considerably more than the amount collected from the laborer. Fines for "neglect of duty" are generally imposed where irrigation workers fail to water all the cane assigned to their care. The month's pay roll for unskilled labor alone was \$6,350, and the total fines therefore amounted to less than one-sixth of 1 per cent of the wages paid this class of workers.

Plantation stores are still conducted by many of the plantations, but they have no monopoly of the business with their employees, as in the case of nearly every plantation in the islands Oriental shops are accessible to the laborers. There are 28 of these establishments, of which 14 are run by the plantation agents and are called "closed," in the sense that they do not buy from Honolulu distributors, but import directly through a single house. The other 14 are "open," buying their merchandise from commercial travelers. Some of the stores importing directly from California without transshipment from Honolulu are able to sell goods at prices lower than those prevailing in Honolulu. The store profits, as shown in the published reports of the plantations, are a source of considerable income. Reports from 14 of the 28 plantation stores in Hawaii show the amount of stock carried to be worth \$381,918, and the net profits for the year \$109,916, or over 28 per cent upon the capital invested. There is a single store, not included in the above, carrying a stock valued at over \$166,000. The variation in profits is very large in different establishments. One store earned nearly 150 per cent on the capital invested, and another less than 2 per cent. The difference does not arise from a difference in prices charged, but rather from market and freight advantages. As a rule the more remote stores pay the least profit. No instances were discovered where workmen complained of the plantation stores, or admitted that they were urged to patronize these stores. Nothing like a truck system was discovered.

About one-half of the operating expense of a plantation is represented by the cost of labor. The cost of operating 10 representative plantations was \$6,077,056, and the amount of this expended for labor was \$3,111,982, or 51.2 per cent of the whole. In a few cases this per cent fell as low as 44 and 47, and in one instance it rose to 61, but the average labor cost is about 50 per cent of the total cost of raising a crop.

The operating expenses per ton of sugar produced vary widely. Upon two neighboring plantations, conducted apparently under much the same conditions, they were in one case \$35.73 and in the other \$54.70 a ton. Upon a smaller plantation they were, for the crop taken off in 1903, \$84.16 a ton. This is an exact cost, including all the expenditures specifically devoted to raising the crop, from preparing the land to harvesting and manufacturing. As the bulk of the crop was sold in San Francisco for about \$65 a ton, one plantation made a large profit, another hardly made expenses after marketing and paid no profit on capital, and the third lost nearly \$20 on every ton produced.

Consequently it is very difficult to say how high a wage the sugar industry as a whole can afford to pay for the bulk of its labor. A decrease in wages of 25 per cent would not have put the last plantation mentioned on a paying basis, and yet the first plantation might have raised wages 50 or even 60 per cent and still have earned 50 per cent upon operating expenses.

The price of sugar reacts upon the conditions of employees upon the Hawaiian plantations. When planters are prosperous more money is spent in permanent improvements, camps are rebuilt, sanitary improvements made, and other measures taken to render the condition of the workers more agreeable or healthful. The influence of the manager and his personal ideas of what constitutes comfort and sanitary surroundings also affect the condition of the plantation worker. There is a good deal of difference in the character of the accommodations found for laborers upon different plantations. Upon the whole the quarters occupied by field hands are as good as those found upon the plantations in the South, or as the camps occupied by railway construction gangs, and other workmen in summer occupations of a like character in the West. The climate, of course, does not demand as substantial dwellings as are needed in any part of Northern America. No serious epidemics have ever been reported among plantation workmen since the islands have been annexed. No evidence has appeared, in connection with the preparation of these reports, that the laborers upon the Hawaiian plantations are not, as a rule, well treated. There have been cases where field hands have been assaulted by overseers, but of late years this has been contrary to plantation regulations, and has occasioned the dismissal of the offenders when complaint was made to the managers or to the plantation agents. Laborers are perfectly free to leave the plantations when they desire to do so. They are not treated just as American workmen would be treated, but their rights as free laborers are generally respected. They are paid their full wages, except for such fines as have been previously mentioned, which are not collected at all on many plantations and which do not represent an average discount of more than a small fraction of one per cent in any case. In all their money dealings with their employers they are

probably more justly treated than plantation workmen in the Philippines, Cuba, or Porto Rico.

White employees upon the plantations are usually well paid, and are seldom overworked. The main hardship of their lives is the isolation and monotony that they sometimes experience, especially in remote districts. But there is good mail service everywhere, and all plantations are connected by telephone with the wireless-telegraph stations, and through them with the cable to California. Outdoor workers do not have to endure the inclemencies of climate, nor are they exposed to the diseases often encountered in the Tropics. So far as the purely physical conditions of employment are concerned, the lot of the white plantation worker in Hawaii is a very pleasant one.

Many of the plantation districts in Hawaii have the appearance of a prosperous countryside in the Eastern States, except for the presence everywhere of the Asiatic. Good roads, well-tilled fields, a country diversified by hill and woodland, and the ever-present sea afford a varied and pleasant prospect to the resident. The pioneer period is long past in any part of the Territory devoted to cane cultivation. The inhabitants are law-abiding and crimes of violence are almost unknown among the citizen population. There is nothing of the frontier atmosphere. The large Asiatic laboring force is something apart in social and political life. For the wage-earner or the man holding a precarious position that can be filled satisfactorily by the half-trained Oriental, this population presents a threat of ever-impending disaster. But the Caucasian working force upon the plantations has now so nearly reached a minimum that those at present employed hardly look upon the Asiatic as a competitor. They are as assured of their positions as any class of workers upon the mainland. Apart from the variety and excitement of urban life, they enjoy most of the social compensations as well as the security of any long established and civilized community.

STOCK RAISING.

The sugar plantations are said to produce more than 96 per cent of the wealth which Hawaii derives from the soil, but there are single stock ranches covering nearly twice the area of all the land under cane in the archipelago. These ranches are engaged chiefly in raising cattle for beef, and the product is consumed in the Territory. The amount of wool shipped from the Territory during the fiscal year ending June 30, 1904, was 169,938 pounds, valued at \$22,406; and the raw hides shipped weighed 970,381 pounds, and were valued at \$74,331. Since these figures were compiled a tannery has been established at Honolulu, tanning local hides; and both finished leather and raw hides are now exported to California. The home consumption of leather is *confined to harness making and a few shoe manufactories.* The latter

are conducted by Asiatics, and make coarse shoes sold to plantation laborers.

The cowboys are mostly Hawaiians, although a few Portuguese and an occasional Japanese are to be found in this occupation. The exigencies of ranching require long hours, and work usually continues throughout the 7 days of the week. Food is almost invariably furnished to employees, the nature of their occupation, which requires them to be absent from home or from headquarters much of the time, rendering it necessary to supply them with something resembling a field ration. Abundant beef is usually given, and the second article of food is usually prepared taro, or "hard poi." Japanese workmen, who are generally employed to repair fences or clean land of noxious weeds, are supplied with rice and with a rather smaller ration of fresh meat than the natives. On one ranch cooked beef *ad libitum* was supplied the men from the ranch-house kitchen, and each married man was allowed 9 bundles and each single man 6 bundles of hard poi a month. The value of the latter was about 75 cents a bundle of 30 pounds. On another ranch the ration was from 18 to 25 pounds of fresh beef and 40 pounds of hard poi a week. The practice of different ranches varies in the matter of supplying horses to cowboys. The older custom was for the employees to furnish their own horses, being allowed as an incident to their employment to pasture a certain number upon ranch land. But with the stricter administration and closer accounting of time and labor that has come in with the systematic organization of ranching enterprises, the graziers are beginning to supply horses to their employees. The wages of cowboys vary considerably with the location of ranches, those near towns or where the native population is sparse usually paying a higher rate than those in remote localities or in the vicinity of native villages. There is also a considerable variation in wages upon the same ranch. About the lowest pay for youths and less experienced or less competent adult herders is \$15 a month with house and rations. Men employed by the day generally receive \$1 a day and rations while on duty. Japanese fencemen were paid in one instance 9 cents a post, including wiring. Medicines and medical attendance are not regularly supplied, though practice in this respect varies not only upon different ranches, but in case of different employees upon the same ranch, at the discretion of the manager. Work is fairly regular and reliable, qualified men having little difficulty in securing and retaining employment. The ranches have never been under the necessity of importing labor. Stock herding is an occupation that is popular with the natives, and at which they will work more steadily than at other forms of labor.

RICE CULTIVATION.

Rice is cultivated on the lowlands and coast valleys of the islands of Kauai and Oahu, and to a less extent upon Hawaii and Maui. The industry is almost entirely in the hands of the Chinese, many of whom are old residents or natives of the Territory and American citizens. The area under cultivation and the product in paddy or unhulled rice, for the year ending June 30, 1904, were as follows:

AREA CULTIVATED IN RICE AND TONS OF RICE PRODUCED, YEAR ENDING JUNE 30, 1904.

Island.	Acres.	Tons.
Oahu.....	5,094	12,897
Kauai.....	3,581	7,759
Hawaii.....	266	665
Maui.....	81	21
Total.....	8,950	21,342

The product in cleaned rice for the year in question was estimated at 280,000 bags, or 14,000 short tons. At \$3 a bag this crop was worth \$840,000 to the Territory, and at normal prices would have exceeded \$1,000,000. The consumption of rice in Hawaii is estimated to be about 350,000 bags per annum. But on account of the large importations of Japanese and Louisiana rice, which have reduced prices from \$5 to as low as \$2.50 a bag within a few years, the industry is very much depressed. The Japanese rice comes into the Territory despite a tariff of a cent a pound upon paddy, partly on account of the vigorous efforts made by Japanese merchants to promote its sale, but more largely, it is claimed, because it is preferred by the Japanese laborers on account of certain distinctive qualities, such as a larger per cent of gluten than is possessed by Hawaiian rice. Be this as it may, the Japanese product commands from a cent to a cent and a quarter a pound more than the native rice in the local market, and two Japanese mills are kept busy cleaning the imported paddy. The total importation for the year ending June 30, 1904, was 165,233 bags of Japanese and 23,496 bags of Louisiana rice. The latter evidently does not displace the local rice to the same extent as the Japanese, but it indirectly competes with the native product by closing to it a possible market upon the mainland. A slight betterment in the condition of the industry in the summer of 1905 has been due to increasing sales in California, said to be caused by a curtailed production in the Southern States.

Rice can be produced more cheaply in Louisiana than in Hawaii, in spite of the lower wages in the latter country, if the methods of production and high land rentals now prevailing in the Territory are

maintained. The cost of raising a 5-acre crop of rice in Hawaii has been estimated to be as follows:

Land rent, at \$25 per acre.....	\$125.00
Labor, at \$18 a month and board.....	300.00
Care of stock, at \$90 per head.....	90.00
Fertilizing, at \$3.75 an acre.....	18.75
Taxes on land and improvements, at \$250 per acre.....	12.50
Taxes on leasehold.....	12.00
Taxes on paddy on hand (4½ tons), at \$50 a ton.....	2.06
Taxes on growing crop (6½ tons), at \$50 a ton.....	3.12
Taxes on stock, at \$25.....	.25
Transportation, at \$0.15 a bag.....	24.75
Milling 165 bags, at \$0.20 a bag.....	33.00
Cost of crop (165 bags, or 8½ tons).....	621.43
Cost per bag.....	3.76

This estimate was made by several rice planters and factors of Honolulu. It is probably somewhat higher than the cost of production in certain parts of the islands, and planters were found who claimed that they could make ends meet when they netted \$3.25 a bag for rice. The land rentals appear exorbitant to an American, especially when it is considered that the land used for rice cultivation is for the most part almost worthless for any other purpose, and that it has been made productive at the expense of a great deal of labor on the part of the tenant. A person sometimes questions whether anyone but a Chinaman would pay such rent. A price that not infrequently reaches \$50 per acre per annum for the use of swamp land dependent upon continued cultivation for its value is out of all proportion to the returns derived from rice planting at present. Two crops are raised in the course of a year.

The laborers employed on rice plantations are almost exclusively Chinese, the only exceptions reported being one or two companies of Japanese, said to be working unsuccessfully on the island of Kauai. The hours of labor are from sunrise to sunset, and the men usually work seven days a week. The pay of field hands working by the month was reported to be \$17 and \$18 a month and board in the vicinity of Honolulu, and \$15 a month with board upon the remoter plantations of some of the other islands. A large Chinese planter on Kauai said: "If the Chinese can't make \$18 clear a month when they work on shares they won't sign a contract. We have to employ on an average one field hand for every 4 acres, from which we get 12,000 pounds of paddy or perhaps 4 tons of cleaned rice. During the cutting season we must have a helper for each man, or one man for every 2 acres, besides the cook and foreman who attends to the water." The share planters earn various rates, according to the terms of their contract and the success of the crop. They are usually supplied with advances or with food and lodging while the crop is being raised. In one instance they receive \$25 for the season, besides an equal share of the

crop. Usually the cooperators share equally with the employer. Yet in one case mentioned the owner received 30 per cent of the rice and the laborers shared the remaining 70 per cent, less advances. No deduction from the workers' share was made for seed and the use of animals supplied by the owner, which items were part of the capitalist's contribution to production. In another case the arrangement was similar, except that the owner received 40 per cent of the crop. The varying amount of the owner's and the laborers' share, respectively, depends upon the productivity of the land, the price of rice, and the local scarcity or abundance of Chinese field hands.

Each planting company has a cook, and there is usually one man who attends to the irrigation. He is usually more responsible or experienced than the others and occupies the position of foreman, receiving from \$2 to \$7 a month more than ordinary hands. As to the scale of living, one large Chinese rice planter and mill owner said: "On the rice plantations we have to give the men four meals, as they work very long hours. We give one kind of meat or fish, and not less than three kinds of vegetables, one of which is generally cabbage. The men eat before they go to work in the morning, and after they come back at night; and they also have two rests of half an hour, at about 11 a. m. and 2 p. m. for eating. We count the cost of food and lodging to the planter at \$7 a month."

COFFEE.^(a)

Coffee has been raised in some parts of Hawaii since the earlier half of the last century and was exported in small quantities before the sugar industry was established. It continued a relatively unimportant crop, however, until the decade between 1890 and 1900, when the high price of coffee throughout the world caused a sudden and, as ultimately was proved, unwise expansion of the industry. Trees were in many cases planted upon unsuitable lands, so that while the groves thrived for the first few years, they later ceased bearing or did not have the vigor to resist blight and other plant diseases, and cultivation was undertaken subject to conditions that promised a profit only so long as the high prices then prevailing continued. When these prices dropped the boom in the industry collapsed, and a period of depression ensued in the coffee districts that has done much to discourage any attempt to diversify agriculture in those parts of the islands. Nevertheless, among the many plantations started there were a few blessed with exceptional advantages of soil, climate, and location that have survived and are in a degree prospering, but chiefly through a system of subleases to Japanese. Several of these are located upon the North Kona coast of Hawaii and there is one large and well-administered planta-

^a See also page 395.

tion upon the opposite side of the same island, in the Hamakua district, that has managed to maintain itself in the midst of other failures.

The conditions of employment of hired workers, are governed largely by the conditions prevailing upon the neighboring sugar plantations. Wages range from \$16 to \$18 a month, with free quarters, water, and fuel. Pickers receive from 40 to 50 cents per hundred weight of berry. Cultivators employed in keeping the ground clear under the trees are paid 90 cents an acre a month on one plantation. One man can keep from 15 to 20 acres in good condition, working his own time. The cost of producing a pound of coffee is said to be about 7½ cents in North Kona and 10 cents in the Hamakua district. Another estimate in the latter district, based upon conservative data, would make the cost of clean coffee, delivered at port of shipment, 8.7 cents a pound.

The coffee crop of 1903 was the largest that the Territory ever produced, exceeding 3,000,000 pounds. Ninety-five per cent of this was raised upon the island of Hawaii. The total value of the crop exported was \$184,180. The land planted in coffee does not exceed 4,500 acres, but important extensions were being made of the present plantations of North Kona in 1905, and new land was also being brought under cultivation in connection with the Hamakua plantation already mentioned.

FRUITS.

A trade of some importance in bananas (between the port of Hilo, on the island of Hawaii, and San Francisco) has sprung up since the report of 1902 was written. In 1905 this industry was suffering somewhat, principally from the lack of regular and cheap transportation, which enabled the American fruit companies, with their more efficient organization and quicker deliveries, to flood the California market just prior to the arrival of Hawaiian shipments.

The growing and canning of pineapples is an expanding industry in Hawaii. Four canneries are now in operation—two in the vicinity of Honolulu, on the island of Oahu, one upon the Kona coast of Hawaii, and one undertaken by a sugar planter on the island of Maui. This industry thus starts with a wide distribution in the Territory, and it gives promise of being permanently profitable. The shipments of canned fruit rose from 8,000 cases in 1903 to 20,000 cases in 1904, and it is anticipated will approach 40,000 cases the present year. Both field labor and the work of canning are done by Asiatics, and wages and general conditions of employment do not differ markedly from those prevailing upon the sugar plantations. The field work is pleasanter and less arduous than that of raising cane. The pineapples at present are planted mostly at an altitude of 1,000 feet or over. No form of labor is employed in this industry that would present physical hardships to white men. The canneries were not in operation when the figures for this report were gathered, but the prevailing rate of pay

for Japanese cannery hands was reported to be \$1 a day. As in case of coffee, the cultivation of this crop is beginning to fall into the hands of Japanese companies, and one of the largest tracts in the Wahiawa colony, which has made a specialty of pineapple raising, is now leased to a Japanese planter.

An American pineapple farmer, managing his own place, employed an American teamster at \$2 a day and house; an American mechanic at \$2 a day, with board and lodging; and 15 Chinese laborers, who received 10 cents an hour and house. They worked nine hours a day. The usual return is from 5 to 10 tons of pineapples to the acre, and the price paid by the cannery is \$30 a ton. This farmer shipped most of his fruit fresh to the mainland market, receiving a somewhat higher price. The owner of a neighboring farm, also an American, said: "From those two acres of pineapples I sold \$256 worth of pines, to a man who harvested them himself. That was my winter crop. I expect to sell the summer crop from the same field to the cannery for \$300."

MISCELLANEOUS RURAL INDUSTRIES.

There are several plantations upon the islands where sisal is grown, one place near Honolulu being operated successfully by a company having \$75,000 invested in the business and nearly 1,500 acres under cultivation or in process of clearing. Two rubber plantations have been started, one of which is already far enough along to indicate that the natural conditions for successfully establishing this industry exist in some parts of Hawaii. Experiments with Cuban tobacco have been conducted by the Federal agricultural station with favorable results, and some attention is being given to its cultivation by sugar planters on Hawaii. There appears to be a fairly strong movement toward a diversification of industry in the islands, though this has not passed out of the experimental or initiatory stage as yet. The low prices of sugar prevailing recently have helped to turn the attention of local capitalists toward the production of other crops. But none of the new undertakings has reached a period of development where it encounters a labor question of its own or affects the general situation in the Territory.

TRANSPORTATION.

The larger cane plantations upon all of the islands have their own railway systems, but these are not used for general transportation purposes. Oahu, Hawaii, and Maui also have public railways, though only upon the first of these islands does the railroad afford access to a considerable part of the country. The railway upon Hawaii is being extended, and will ultimately connect the series of plantations extending for nearly 90 miles along the Hilo and Hamakua coast, or windward side of the island, with a possible access to Kau, or the southwestern district, by way of the volcano of Kilauea. A franchise has

been granted for a projected line along the Kona coast of Hawaii. A very small line, which runs trains for public service but twice or three times a week, extends along the Kohala coast of the same island, chiefly for the purpose of carrying sugar from the plantations of the district to the nearest shipping port of Mahukona. Maui has a single system, affording transportation in connection with plantation railways of the same gauge to all of the central plain, where settlement is mostly concentrated, although the locally important town of Lahaina and its environs are not served by this company. The wages and hours of labor of railway employees, which include a complete census of these occupations so far as public roads are concerned, are given in the general tables that form the second part of this report.

Interisland traffic is almost entirely in the hands of a single shipping corporation, which was formed by the union of the two companies that operated independently, but not competitively, until June, 1905. The terms of employment for steamship employees are also given in the general tables. There has been a partial displacement of Hawaiian sailors by Japanese, but this has not extended to skilled positions. The Asiatics are not considered as good boatmen as the natives, and their entry into this occupation is to be accounted for by other than purely economic motives on the part of the shipowners. It has been occasioned largely by the fact that the Hawaiians prove unreliable in a seaport town like Honolulu, where they will often sacrifice a permanent position rather than forego the pleasure of attending some festivity among their own people or of celebrating pay day by a spree. The Asiatics are less competent, but they are always on hand when a man is wanted.

Honolulu has an excellent electric-railway system, extending well into the suburbs, that employs only citizen labor, except in a very few unskilled positions. The rate of pay of motormen and conductors is 30 cents an hour, or higher than elsewhere in the United States, with the exception of one or two cities in Montana. The pay is the same on all runs, and the men are employed on an average nine hours a day.

OTHER NONURBAN EMPLOYMENTS.

Forestry and mining afford practically no employment in Hawaii, and except in remote localities the fisheries are almost entirely in the hands of Japanese. They work either independently or for a share of the catch, so that this industry also is not an employing one. It has been proposed at various times to organize the fishing business and make the islands a center for systematic food fishing by a fleet of schooners under a single company, but this project has fallen through before proceeding beyond the stage of discussion.

Most of the men working in the country who are not employed in the various agricultural industries already described or in cultivating

small homesteads without hired service are engaged upon the large irrigation and electric power works now being constructed, or upon the public works. The irrigation ditches and reservoirs are built by Japanese laborers, who usually work in contracting companies under general white supervision. So much of this work is paid for on a piecework basis that actual earnings are difficult to determine; but general laborers expect to receive \$1 a day for ditch digging and other kinds of excavating. They are usually supplied with shelter, but not with rations or medical attendance. Contractors sometimes earn much more than this sum, and cases are not rare where Japanese are said to have earned \$2 a day on ditch and tunnel contracts.

Only citizen labor is employed upon public works, as a consequence of a law passed by the Territorial legislature in 1903. The prevailing wages and hours of labor are given in the general tables, from the pay rolls of several of the principal contractors doing work for the Government. Unskilled labor is paid from \$1 to \$2 a day, according to the locality where the work is performed and the amount of resident labor in the vicinity. Rough carpenters and semiskilled mechanics receive up to \$2 and skilled mechanics up to \$4 or \$4.50 a day.

Public works undertaken by the Federal Government are still open to Asiatic labor. For reasons more fully stated in another section of this report both employers and employees in the Territory are favorable to a policy restricting this field of employment also to citizens or persons eligible to become citizens.

There is no present prospect that the country population of Hawaii will ever be employed extensively in other than agricultural pursuits. There are no mineral resources, and the islands are without local fuel supplies or other sources of constant power sufficient to encourage manufacturing industries.

URBAN EMPLOYMENTS.

Some clothing, boots and shoes, and bamboo furniture are manufactured by Orientals in the small shops of Honolulu, and both there and in Hilo there are Asiatic establishments that make tinware for sale at plantation stores and elsewhere among the working people. The building trades and associated occupations afford about the only field of employment for skilled white labor where a considerable number of men are following the same trade, if we except two or three machine shops not employing Asiatic labor.

The wages and hours of labor of white mechanics in Honolulu and elsewhere throughout the archipelago, when considered in connection with the cost of living and steadiness of employment, present as favorable conditions for workmen as prevail elsewhere in the United States; otherwise white mechanics would leave for California. The high wages of skilled labor in Hawaii are due to some extent to the

fact that much of the white labor employed in the Territory is supervisory labor, directing less skilled native and Portuguese helpers. Although but few of these superintending workmen are needed, it is difficult to keep even a small number in the Territory.

Many carpenters are paid as high as \$4 for an 8-hour day, and brick masons and plasterers from \$5.50 to \$6 a day. Plumbers receive from \$4.50 to \$5.50 for an 8-hour day. Painters are paid as high as \$3 and \$3.50 a day. While work is at times irregular on account of slackness of business, there is not the same seasonal unemployment as in most other parts of the United States.

The clothing trades are almost entirely in the hands of Asiatics. A few white tailors are engaged in business in Honolulu, and there is one white firm in Hilo, but they all, with the exception of the Hilo tailor, are said to employ Chinese or Japanese workmen. There are practically no white wage-earners engaged in making men's garments or boots and shoes, although a few find employment independently in repairing and cobbling. Native and Portuguese sewing girls are reported to earn \$1 a day when constantly employed. Although these trades are almost monopolized by Orientals, the average rate of wages is probably not lower than in large American cities, and the economic condition of the Chinese or Japanese worker in these occupations is absolutely, as well as relatively to his standard of living, better than that of the sweat-shop workers of New York and Chicago.

The preparation of food and drink affords employment to a number of workers, who are mostly Asiatics. Most of the bakeries, confectionery shops, and hotels and restaurants employ Chinese help, or, as a second choice, Japanese. Workers of the latter nationality are more commonly found than the Chinese in laborious occupations, such as operating aerated-water machinery. The Honolulu brewery, which is the only establishment of the kind in the islands, employs only white or native labor in its manufacturing departments and delivery service. Bottlers and common laborers are paid from \$1 to \$1.75 a day, teamsters from \$54 to \$75 a month, while skilled help receives from \$100 to \$250 a month. Asiatic bakery and confectionery hands are paid from \$20 to \$40 a month, with board and lodging.

Practically all domestic servants are Asiatics, and their rate of pay varies with their skill, reliability, and knowledge of the English language to such an extent that it is quite impossible to estimate their average earnings. Plantation cooks receive from \$18 to \$30 a month. Similar rates are paid in the wealthier households of Honolulu. A Part-Hawaiian stationary engineer was paying his Japanese servant, who cooked for his family, \$4.50 a week and board, while in a neighboring family a Japanese boy who did not cook, but attended school and performed household duties out of school hours, was paid \$1.50 a

week and board. Domestic servants are organized into guilds. Japanese servants are frequently under some obligations to employment agencies kept by their countrymen, and are changed from one position to another, to serve the convenience of the agency or as they acquire increased skill and experience.

Caucasian mercantile establishments employ white clerks and salesmen except for dealings with Asiatic customers. As all the better houses have some retail trade with the Orientals, and sometimes sell goods regularly to Chinese and Japanese merchants, they generally have one or two clerks of those nationalities upon their pay rolls. Few, if any, whites or natives are employed in the Oriental stores.

The salaries of white salesmen and office clerks are rather higher than in towns of equal size in America. Bookkeepers are paid from \$100 to \$250 and \$300 a month, copyists and stenographers from \$60 to \$100, and salesmen from \$40 to \$100. Many retail stores have some Part-Hawaiian and Portuguese clerks who are paid a lower rate than Americans or north Europeans. Most of the mercantile establishments in the American quarter close at 6 p. m., but the Oriental stores, especially small shops and provision stands, are open evenings. Sunday closing is almost universal, except for places where refreshments are sold.

The only urban occupations not subject to Asiatic competition are the English printing trades and some forms of employment in machinery and metal working. Oriental blacksmiths and horseshoers have shops in Honolulu, and the Japanese compete with boiler makers in making the large tanks used as receivers for the fuel oil now largely employed for steam making in the islands. The language difficulty as yet forms an insurmountable obstacle to the employment of Asiatics in English printing offices, but there are several Chinese and Japanese newspaper and job printing establishments in the Territory, catering chiefly to the needs of the Oriental population, that occasionally do English work.

The manufacture of sugar-mill machinery and the repair of mill and marine machinery and dock-yard work form the largest employing industry in Honolulu. Two principal establishments are engaged in this business, the larger of which had about 270 men and the smaller 55 men on its pay rolls in June, 1905. This total rises to over 400 men during busy seasons. No Asiatics are employed, either as mechanics or laborers, by either company. Foremen receive \$6 and \$7 a day, journeymen average from \$3.75 to \$4, and helpers, who are mostly natives and Portuguese, from \$1.75 to \$2. The rate varies according to individual efficiency. The trades represented are pattern makers, molders, machinists, blacksmiths, boiler makers, and shop laborers. Apprentices and youths are paid from \$6 to \$9 a week, and a few boys receive \$3.50 to \$4.50 a week.

Skilled electrical work is also entirely in the hands of Caucasians and Hawaiians. Wiremen receive from \$2 to \$3.50 and linemen \$2.50 or \$2.75 a day. Some wiring in the Chinese quarter is done by Asiatics, but the amount is small and the work of a character requiring little skill.

Job compositors in small shops receive from \$12 to \$15 a week, while hand compositors, both job and newspaper, are paid up to \$20 a week in larger establishments. Linotype men get from \$20 to \$34.40 a week. Press boys receive from \$1 a day up, and feeders of large presses as high as \$3 a day.

This covers in a broad way the field of employment in Hawaii. There are many individual omissions, but the industries not mentioned are unimportant and present no conditions requiring special description. In some trades, like carriage making and repairing, the establishments conducted by Asiatics are almost, if not quite, as large as those owned by white men. The employees in the white shops are nearly all Caucasians, and in the Asiatic shops Orientals. The same is true of milling and steam joinery. Here the competition, which in a degree determines the condition of labor as represented in wages and hours of work, is among employers as well as among employees. But the effect upon wages is not marked.

In brief, then, the labor demand of the Territory is found chiefly in rural industries and overwhelmingly, as compared with other fields of employment, considered either singly or in the aggregate, upon the sugar plantations. About all the study of other occupations will do is to show how closely the labor conditions in them conform to the conditions prevailing upon the plantations in all essential respects.

THE COST OF LIVING.

In considering the cost of living of the working people three distinct classes must be regarded—white mechanics and skilled workers; white and Hawaiian unskilled workers, the former of whom are mostly Portuguese with a few Germans and Austrians, and Asiatics. In case of each class of workers the cost of living is different in Honolulu from that upon the plantations, and it is not uniform throughout the country districts of Hawaii.

The skilled Caucasian workers of the Territory maintain quite as high a standard of living as any class of wage-earners in America. Upon the plantations they are housed in comfortable cottages, frequently with garden and stable. They have free water connection and are usually supplied with fuel. Unmarried employees often board in a plantation mess, which is partly supported by the company. The cost of board runs from \$20 to \$25 a month and is usually about

as good as boarding-house fare costing the same amount in an American city. On one plantation, where several employees formed a mess and the company supplied house, fuel, water, and dishes and utensils in the first instance, it cost the men \$23 a month when 8 were at the table and \$20 a month when there were 12. On a neighboring plantation, where the plantation furnished the same items as in the case just mentioned, the mess expenses for food and cook's pay were \$21 a month. On a small plantation upon another island, where there were 4 in a mess, the cost was \$25 a month. At another place an unmarried bookkeeper, who was allowed a house and fuel and water, besides \$12 a month for a cook, by the plantation, and had one boarder paying \$30 a month for board and lodging, found his living expenses to be \$50 a month, exclusive of clothing and laundry. This gentleman purchased the material for clothing and paid a Japanese tailor \$15 for making a suit. The tailor supplied thread only. The total cost of a business suit was about \$30. A new house occupied by an overseer on Lihue plantation had cost \$1,900 and would rent for \$20 a month. It had a large "lanai," or veranda living room, such as are common in Hawaii, a sitting room, dining room, two bedrooms, and a bathroom, besides kitchen and outhouses in the rear. Upon another plantation two residences recently erected for white employees had cost \$1,000 and \$1,076, respectively. These were neat frame cottages of five rooms and a bath. Some of the smaller cottages cost \$700. Probably the expense to the plantation of erecting these buildings was not greater than it would be in most parts of the United States.

Upon all plantations a person finds as great a variety and as excellent food as he would be apt to get in any country town upon the mainland. Practically all the vegetables raised in the Temperate Zone are cultivated in Hawaii, besides taro, alligator pears, and breadfruit. Strawberries are grown to perfection in several parts of the islands, while native grapes, peaches, and apples are somewhat less abundant, but most of the temperate zone fruits are brought from California. Furthermore, there are several varieties of tropical fruit in season at nearly all times of the year. Cured meats, fresh meats of different kinds and often of excellent quality, fresh milk and cream, and in most places fresh sea fish are obtainable. In the matter of table supplies Hawaii resembles California much more than it does most tropical countries. And there is probably no place in the West Indies, not excepting Habana, where the same variety and quality of food familiar to Americans is to be found as in Honolulu.

In comparing the living expenses of a white mechanic in Honolulu with those of a wage-earner of the same class upon the mainland regard must be had for a certain difference in the style of living demanded by custom in the two places. An American carpenter in Honolulu

expressed this well by saying: "There is nowhere else so much swell-dom among the poor as in this country." You never see a white work-man carrying a dinner pail in Honolulu. The wives of carpenters and painters often keep a Japanese servant. All the white people in the city form a sort of caste, as compared with the Orientals, and strive to maintain the dignity of their position. The wages of a skilled and reliable white mechanic, when steadily employed, afford him an income quite equal to that of many professional men and men employed in clerical occupations. In the past money has come and gone easily in the islands, and a liberal scale of expenditure was demanded by universal custom. Even to-day there is no coin smaller than the 5-cent piece in circulation. These conditions do not invite to thrift and personal economies. They appear as a heightened cost of living that is quite independent of the price of commodities.

A foreman plumber said: "Clothing is about as cheap in Honolulu as in San Francisco. It costs my wife and myself about \$80 a month to live. A single man who lives well must pay \$40 a month for board, lodging, and washing."

An American-born carpenter, who had lived in Honolulu for twenty-seven years, and who had a family of 5 children—some of whom were in the high school—his wife being dead, said: "It costs me \$75 a month to live. I pay \$20 a month for my cottage (situated on a good residence street within walking distance of the business portion of the city), which has 3 large and 2 very small bedrooms, a parlor, dining room, kitchen, and bath. My grocery bill averages between \$28 and \$30 a month. I pay from \$12 to \$14 for fresh meat, \$3.50 for fresh milk, and buy my fresh vegetables at the door from Chinese market gardeners. So my family expenses are \$75 a month, without counting clothing and extras."

Another American carpenter, who had moved to Hawaii from the Middle West more recently, said: "I own a lot and have built my own house. I raise my own chickens and have plenty of eggs; and also have my own fruit, including several varieties of bananas, papayas, guavas, and mangoes; and raise such vegetables as turnips, beets, carrots, and lettuce. If I kept a cow I should hardly have to work to supply my table. Wood costs \$14 a cord, but we don't use much of it. Electric light costs \$1 a light a month. My expenses for fuel, clothing, and eatables for my family are no greater than they were four years ago in America."

Some workingmen's cottages in less desirable localities rent for as low as \$10 and \$15 a month. Very pretty cottages with all modern improvements and pleasant grounds are to be had for from \$20 to \$35 a month. Rents are now much lower in Honolulu than they were three or four years ago.

Such quotations as the following are taken from the monthly accounts of workingmen's families in Honolulu: Fifty loaves of bread, \$2.10; 26 quarts of milk, \$2.60; 2 pounds butter, \$0.60; 16 pounds potatoes, \$0.40; 6 eggs, \$0.20; 1 pound "Comet" tea, \$0.65; 5 pounds roast coffee, \$1; 8 pounds rice, \$0.45; 20 pounds "Peerless" sugar, \$0.80; 6½ pounds ham, \$1.20; 2 cans peas, \$0.40; 1 can tongue, \$0.30; 1 can tomatoes, \$0.15; 2 pounds salt pork, \$0.40; 1 bag "Golden Gate" flour, \$1.50; 2 pounds soda crackers, \$0.25; 2 packages "Force," \$0.40; 1 sack corn meal (5 pounds), \$0.25; 1 gallon vinegar, \$0.25; 2 packages macaroni, \$0.25. These prices are from several establishments, including some of the largest stores, carrying high-grade stocks, and suburban groceries supplying a workingmen's neighborhood. Some whites, especially Portuguese and the lower paid Europeans and Americans, patronize Oriental stores. One mechanic said: "It makes a difference of about 25 cents in a bill of \$2.50 or \$3 if you buy of a Chinaman, but you get stale or inferior goods. The goods are American in both cases, but of different grade or quality. My boy, who works in one of the principal American provision houses, says that when their stock gets stale on the shelves they box it up in the original cases and sell it to Chinese and Japanese dealers."

Since no coin of less value than a 5-cent piece is in circulation, prices are not usually graded down below that denomination, except where several units are sold together. For instance, in case of canned goods the price for a single can may be 15 cents, while the price of two cans is 25 cents. Consumers in Honolulu reported that it was not the custom to allow for fractions of five cents when several units of different commodities were purchased. Therefore, if half a pound of cheese at 25 cents a pound and one can of tomatoes at 2 cans for 25 cents were bought, the charge would be 15 cents for the cheese and 15 cents for the tomatoes. Consequently, the quoted retail prices of commodities do not in all instances represent the actual cost to a housekeeper who neglects to consider this custom in making purchases.

The cost of good board in private families and residential hotels at Honolulu ranges from \$10 to \$15 a week. Street-car fares are the same and cab fares are lower than in the cities of the mainland. Steam-laundry prices are much lower than in California or the Eastern States. High-grade custom-made clothing is more expensive than in most other parts of the United States, but cheaper grades of custom-made clothing and ready-made garments cost little if any more than in San Francisco or New York. The last remark applies also to furnishing goods. In fact, for all these articles, as well as for hats and boots and shoes, conventional prices prevail for the same brands and makes that are ordinarily found in American stores.

Unskilled Caucasian laborers, teamsters, watchmen, gang and field bosses upon the plantations, the lower paid operatives in mills, and

clerks in retail establishments are for the most part Portuguese, although an increasing number of those employed in these occupations are reported as Americans, because of the growing population of persons born in Hawaii of Portuguese or Part-Hawaiian parentage who class themselves under this designation. There are many Part-Hawaiians and a few workers nominally of full Hawaiian blood who are to be classed with this division of labor in considering the cost of living. There are 600 or 700 citizen Chinese or Chinese-Hawaiian families who have adopted about the same scale of expenditure, although few of these are reported in wage-earning occupations outside of mercantile pursuits. The Porto Ricans still working on the plantations are, for purposes of convenience, considered in the same division.

A representative Portuguese family of the more thrifty class, employed upon a plantation, consisted of the father, who was a laborer, and 2 sons working with teams, besides the mother and a younger son, who were unemployed. The aggregate earnings of the 3 wage-earners for a year were \$742.35, besides which the family income was augmented by \$216 derived from the sale of milk. The plantation furnished this family—in addition to wages—with a 4-room cottage, with detached kitchen, and about 1 acre of garden land. The rental value of the property was estimated to be about \$120 a year. They owned 4 cows, 4 calves, and a horse. A German plantation watchman, with a family of 6 persons, earned \$269 per annum, while two sons, the eldest of whom was 17 years of age, contributed enough to the family income to bring it up to \$543.40 for the year. This family was supplied by the plantation with a 5-room cottage, with detached kitchen, a large garden, and pasture. They owned a horse, donkey, 2 cows, and a calf. A German field boss, with a family of 7, one of whom was a son 17 years old, working in the mill, had a family income of \$646, of which \$52 was derived from other sources than wages. They also occupied a 5-room cottage, with detached kitchen, garden, and pasture. They owned a horse and carriage, 2 cows, and 2 calves. No accurate account of the expenditures of these families was obtainable; but their store accounts, which included most of their cash outgo, were estimated at between \$30 and \$40 a month.

A Portuguese night watchman, with a family of five, received \$360 a year, and estimated his store account at \$276 and his expenses for clothing at \$33 additional. A few other items, such as lighting, which was considered to cost \$8 a year, brought his total expenses up to nearly his entire income. The eldest of his 3 children was 8 years old, so none of them contributed anything to the family earnings. A Portuguese plantation locomotive engineer, who was a young man of 26, with a family of 4, had an income of \$780 per annum, and was able to save \$124 the year reported after paying all his expenses. The

plantation cottages occupied by the Portuguese laborers and teamsters usually contain 4 rooms and cost from \$400 to \$600. Most families keep cows, pigs, and chickens, and raise at least a portion of their own fruits and vegetables. A Spanish field boss in charge of a gang of Porto Ricans said that the latter spent about \$8 a month for board, and paid from \$1 to \$2 a month for 1-room cottages. These men live in houses away from the plantation by preference. Their total living expenses, except for clothing, "drink, and tobacco" were estimated at \$10 a month, or about the same as those of the better class of Japanese laborers. "Poi," a preparation of taro root, is a staple article of diet used by the Hawaiian employees upon the plantations. This costs them about \$3 a month in some places and as much as \$4.50 in others. A man with a family will use about 9 bundles of hard poi, which costs from \$6 to \$7. At a plantation coffeehouse patronized by natives a cup of coffee, with sugar and bread and butter or cakes, costs 10 cents. The cost of food for a family—bought for the most part from the Chinese coffee shops—was estimated at 30 cents a day, exclusive of poi. Rather neat 1-room cottages with a small veranda, occupied by Hawaiian laborers, cost the plantation \$75 each.

The following store accounts for a month of Portuguese and Porto Rican plantation laborers were taken at a place where, on account of the isolation of the plantation camp, it appeared probable that most of the purchases would be made at a single establishment:

1. Portuguese laborer, wife, and 4 children (monthly earnings, \$25.15): 3 bags flour, \$4.65; 5-gallon tin kerosene, \$1.50; 50 pounds sugar, \$2.25; tobacco, \$0.25; matches, \$0.10; 25 pounds wheat, \$0.65; 5-pound tin lard, \$0.60; soap, \$1.25; sewing-machine oil, \$0.15; blueing, \$0.05; onions, \$0.25; codfish, \$1.50; canned salmon, \$1; macaroni, \$0.25; coffee, \$0.50; tea, \$0.25; cheese, \$0.25; butter, \$0.10; rice, \$0.50; baking powder, \$0.25; salt, \$0.10; honey, \$0.25; bayo beans, \$0.25; cap, \$0.25; comforter, \$1.25. Total, \$18.40.

2. Portuguese laborer, wife, and 1 child (monthly earnings, \$25.25): 2 bags flour, \$3.10; 5-gallon can kerosene, \$1.50; 50 pounds rice, \$1.90; sugar, \$1.25; canned salmon, \$1; potatoes, \$0.75; codfish, \$0.75; onions, \$0.55; tomatoes, \$0.50; canned corn beef, \$0.50; canned beef, \$0.45; soap, \$0.75; lard, \$0.35; vermicelli, \$0.25; beans, \$0.10; raisins, \$0.20; biscuits, \$0.50; starch, \$0.10; blueing, \$0.10; coffee, \$0.25; tea, \$0.25; tobacco, \$0.25; hair pins, \$0.05; broom, \$0.35. Total, \$15.75.

3. Portuguese laborer and wife (monthly earnings, \$23.40): 1 bag flour, \$1.55; 5-gallon can kerosene, \$1.50; 25 pounds sugar, \$1.15; 5-pound can lard, \$0.60; condensed milk, \$0.50; 25 pounds potatoes, \$0.60; beans, \$0.50; codfish, \$0.75; onions, \$0.25; wheat, \$0.25; coffee, \$0.50; vinegar, \$0.15; salt, \$0.05; soap, \$0.50; starch, \$0.10; blueing, \$0.05; tobacco, \$0.75; 2 undershirts, \$1; 2 plates, \$0.25; cotton sheeting, \$1; 1 pair pants, \$0.90; fresh beef, \$1.50. Total, \$14.40.

4. Portuguese laborer, wife, and 4 children (monthly earnings—father, \$19.45; daughter, \$12.25; total, \$31.70): 4 bags flour, \$6.20; 5-gallon can kerosene, \$1.50; one-half bag sugar, \$2.85; beans, \$2; macaroni, \$1.25; 5-pound can lard, \$0.60; 25 pounds wheat, \$0.65; 50 pounds potatoes, \$1.15; onions, \$0.25; garlics, \$0.10; codfish, \$0.25; vinegar, \$0.70; coffee, \$0.75; tea, \$0.25; chicory, \$0.10; salt, \$0.15; butter, \$0.10; shrimps, \$0.05; soap, \$1; tobacco, \$0.75; brown cotton sheeting, \$1; gingham, \$1.25; fresh beef, \$3. Total, \$25.90.

5. Porto Rican laborer and 3 children (monthly earnings—father, \$15.75; son, \$12.30; total, \$28.05): Kerosene, \$0.15; one-half bag rice, \$2.15; codfish, \$1; wheat, \$0.75; sugar, \$0.75; 5-pound can lard, \$0.60; canned corn beef, \$0.45; beans, \$0.25; onions, \$0.10; garlics, \$0.10; pepper, \$0.05; cheese, \$0.05; coffee, \$0.25; condensed milk, \$0.50; salt, \$0.05; matches, \$0.05; charcoal, \$0.15; soap, \$0.50; starch, \$0.20; tobacco, \$0.75; 1 shirt, \$0.50; spoons, \$0.15; fresh beef, \$1.50. Total, \$11.

6. Porto Rican laborer and wife (monthly earnings, \$16.90): 2 bags flour, \$3.10; one-half bag rice, \$1.75; kerosene, \$0.30; candles, \$0.25; sugar, \$1; 5-pound can lard, \$0.60; onions and garlics, \$0.15; pepper, \$0.05; codfish, \$1; potatoes, \$0.15; coffee, \$1; salt, \$0.05; soap, \$0.50; starch, \$0.10; blueing, \$0.05; tobacco, \$0.50; thread, \$0.25; bunting, \$1; fresh beef, \$1.50; cigarette papers, \$0.10. Total, \$13.40.

Upon Koloa plantation it was estimated that a Portuguese man and wife, living economically, keeping cows and chickens, and occupying a plantation house with garden, could live with a cash expenditure not exceeding \$16 a month. A Portuguese overseer with a wife and 2 children spent \$40 a month. The following prices of clothing were secured at a plantation store: Stout leather shoes, with sewed soles, \$1.75 a pair; black canvas shoes, nailed soles, \$1.50 a pair; best working shoes, American factory made, \$2.25 a pair; khaki pants, made locally, \$1 a pair; denim shirts, \$0.50 each; denim pants, \$0.75 a pair; drill shirts, \$0.75 each. This store sold Hawaiian-made, all leather shoes for \$1.50 a pair.

The cost of living for the same class of labor is considerably higher in Honolulu. Rent and fuel are more expensive and the facilities for keeping stock and chickens and raising garden crops are not quite so good. Nevertheless most of the Portuguese homes gave evidence of thrifty management, and have chicken yards and vegetable gardens in their grounds. A landlord having a number of tenements in a workmen's quarter said: "I am renting 10 cottages of 4 rooms and bath, with sanitary toilet in outhouse, for \$9 a month. I also have 10 smaller cottages that rent for \$6 a month, which have an assessed valuation of \$7,000. In addition to keeping them in repair I pay annually \$70 taxes, \$39 sewer rate, and \$80 water rate. Seven of these cheaper cottages are now occupied by the following tenants: 1 German

laborer, 1 German widow, 2 Hawaiian laborers on government works, 1 Part-Hawaiian working in the Honolulu Ironworks, and 2 Portuguese mason's helpers."

An American night watchman, who raised his own garden vegetables and kept chickens, estimated his grocery bill at \$17 a month, and his total expenses for himself and wife at \$30 a month, aside from clothing.

The Chinese, Japanese, and Koreans are said to spend about an equal amount of money for food, lodging, and clothing, although the distribution of expenditure among these three items is not the same for all these nationalities. As a rule, the Chinese eat more expensive food—and especially consume more meat—than the Japanese, in which respect the Koreans also come to resemble the former after a short stay in Hawaii, although at first they are apt to stint themselves in the matter of provisions. But the Japanese spend more for clothing and usually demand better living quarters than do the Chinese. The miscellaneous expenses of the Japanese are also probably higher than those of the Chinese or Koreans, although this can be stated with less assurance, on account of the impossibility of ascertaining the channels in which these different peoples employ their surplus money.

The Asiatics deal with merchants of their own nationality so exclusively that it is difficult to secure reliable detailed information as to their cash expenditures. The Asiatic plantation employees frequently have small gardens and, like the Portuguese, keep pigs and chickens. Chinese rice planters reported the cost of board and lodging for their field hands as \$6 or \$7 a month. As stated elsewhere in this report, four meals, including rice, vegetables, and fish or meat, are given laborers in these plantations, as the work is for long hours and involves constant exposure and employment in the water.

A Korean overseer said: "My countrymen working here eat rice, vegetables, and fresh beef. They spend \$7 or \$8 a month for board, and are well satisfied. Their total expenses are not more than \$10 a month. In Korea they never earn over \$4 or \$5 a month, and spend \$2 or \$3 for living. They spend more in Hawaii, but still are able to save more than at home." The writer visited a Korean camp at meal-time. The men were boarding in a mess which they conducted themselves, ranges and cooking utensils, as well as house and fuel, being supplied by the plantation. Their mess expenses were said by the cook to be \$6 a month. The men were plentifully supplied with boiled rice, a salad of fresh vegetables, and beef stew. The manager of the plantation said that they would buy the cheaper parts of animals, including the head and refuse meats, and that occasionally they bought fowls, which they stew heads and all. The vegetables were purchased from Japanese market gardeners. Upon another plantation, which also conducts a large cattle ranch, the Koreans buy beef on the hoof,

slaughtering it themselves. It was a general opinion among plantation people that the Koreans spent more money the longer they remained in Hawaii, increasing their standard of living with longer residence. They buy American clothing and adopt American habits to some extent, resembling the Japanese more than the Chinese in this respect. No complaint was made of their using opium, but they are fond of intoxicating liquor, and occasionally have a lively time after pay day.

Japanese plantation employees pay from \$6 to \$7 for board. Their quarters are furnished by the plantation. A Japanese store clerk on one plantation said in substance: It costs a Japanese man, wife, and 2 children about \$10 a month to live, or a little more than this if they have more than the barest necessities. They would use every month one or two bags of rice, probably Japanese rice, which would cost \$4.75 one month and \$9.50 the next; besides buying soy, dried fish, a little fresh meat, a good many beans, and some Japanese canned goods and preserved provisions. Another Japanese store clerk, upon another island, said: "Japanese single men, field laborers, are charged \$6.50 a month for board by Japanese boarding houses in the camps, and mill hands are charged \$7 a month. The latter work longer and have better pay and so live a little better. These men lodge themselves. Tea and rice are the two biggest items of expense. The cost of supporting a Japanese family of 4 persons, with rent, fuel, and light free, and not including clothing, is about \$12 a month. The store account of a Japanese laborer, who was a single man, was as follows: One-half bag rice, \$2.50; one-half bag flour, \$0.80; kerosene, \$0.25; washing and bath-house dues, \$1.25; tobacco, \$1; medical fee, \$0.35; clothing, \$3.50; meats and vegetables bought outside the store, about \$2.70. Total, \$12.35." This would make the cost of food supplies \$6, which is less than the usual price charged for board; but the last item may be overestimated, and the figures are evidently intended to be representative rather than accurate in detail.

The expenses of Asiatic working people in Honolulu are somewhat higher than on the plantations, on account of rent and other items which have been mentioned in connection with other classes of labor. There are numerous Japanese hotels and boarding houses in Honolulu which charge up to 50 cents a day for accommodation. The fare is said to be more elaborate than at plantation boarding houses. Many of the Japanese laborers who are temporarily out of employment live in places run by employment agents of their own nationality, and are probably financed over a period of idleness much as American sailors and lumbermen are at the boarding houses conducted for their benefit—or the reverse—at points where they congregate. In these cases the charge might vary with the necessities of the laborer and his likelihood of securing immediate employment. Chinese laborers

lodging in a village near a plantation were allowed 50 cents a month as compensation for rent. It is quite safe to say that many Orientals in Honolulu do not spend more than \$1 a month for lodging.

The tables showing the retail price of commodities for a series of years indicate that the cost of food is less than it was two years ago. According to the table upon page 515, showing the relative prices of food for the sixteen years ending with 1905, the average price of provisions still remains 5.5 per cent above the average price for the ten years ending with 1899, though it is 2.9 per cent lower than in 1902. Prices appear to have been falling prior to the Spanish-American war, which event seems to have been coincident with the beginning of a marked increase in the cost of all commodities to the consumer. Probably this was in part due to the higher prices prevailing in the United States, and partly caused by the boom attending annexation. From other sources we know that rents have fallen much more rapidly than food prices during the last few years, and clothing and furnishings are probably cheaper than ever before in Hawaii; therefore the cost of living as a whole is presumably not higher than during the period of low prices in the middle of the nineties. The indications are that the trend of prices in the Territory will hereafter respond quickly to the trend of prices upon the mainland, and probably the cost of living in Hawaii will gradually approximate that prevailing upon the Pacific Coast.

HEALTH AND SANITATION.

As Honolulu is a port of call for most steamers and many sailing vessels plying between America and Asia and Australasia, and receives immigrants and visitors from all quarters of the world, it is necessary that the Territorial authorities be constantly vigilant to provide against the introduction of contagious and infectious diseases. The presence of a large Asiatic laboring population, outnumbering the whites several fold, and living in many instances by preference, or at least with indifference, amid insanitary surroundings, has added to the public burden of preserving healthful conditions among the people. And the blight of leprosy—the “mai pake,” or Chinese disease, as it is called by the natives from its supposed source—has so afflicted the Hawaiian race that the government assistance rendered its unfortunate victims imposes financial responsibilities upon the community heavier in proportion to the population than those borne by any State or Territory of the mainland for sanitary purposes. The expenditures of the Territorial board of health have averaged nearly \$400,000 per annum since annexation, or more than those for the support of the public schools. At the same rate per capita the people of the United States would pay \$200,000,000 annually for health protection.

The board of health has charge of food, meat, and fish inspection, plumbing permits, tenement inspection, the leper settlement, public hospitals, and health regulations affecting all residents of the islands.

The Federal quarantine officers, of course, inspect immigrants, and protect the Territory so far as possible from imported diseases.

Honolulu is the only population center in Hawaii where anything approaching urban conditions prevail. Prior to the outbreak of the bubonic plague in 1899 the Oriental quarter of this city is reported to have been in a condition inviting a serious epidemic. Until recently Honolulu had no sewer system, and even now many residences are not connected with the public drainage system. A fire which practically wiped out the Chinese quarter during the cleansing operations conducted at the time of the plague has done much to improve the sanitary condition of Honolulu, and the public improvements since completed have made it unlikely that the former evils will ever reappear.

A tour of inspection of Chinese and Japanese as well as native tenements and lodging houses failed to reveal any instances of gross negligence or disregard of sanitary rules. Some of the better class Chinese apartment houses were kept in as good condition and afforded as healthful home surroundings as many similar buildings occupied by whites in an American city; and the Japanese hotels, of which there were a large number in Honolulu, were as a rule neat and really cleaner and more sanitary than the lodging houses patronized by American laborers in the States. The absence of superfluous furniture and draperies, the clean matting floor covers, the avoidance of spitting imposed by the domestic habits of the Japanese, and the abundant ventilation which the genial climate makes an obvious luxury, all combine to prevent the worst sanitary evils of American slums from showing themselves in Honolulu. The tenement-house regulations, which appear to be fairly well enforced in that city, provide that every dwelling occupied by lodgers or contract laborers shall have a capacity of not less than 300 cubic feet of space for each adult, or 900 cubic feet for a man and wife and two children. All buildings must be separated by at least 10 feet of clear space from any adjacent building, and must have at least 20 inches of clear air space, not secured by excavation below the street level, beneath the floor, unless the floor is of concrete, asphaltum, or masonry, so constructed as to leave no openings beneath. All rooms where water is used in such quantity as to render the floor or the ground under the floor thereof damp must be made absolutely waterproof, with proper drainage. There is a further provision to the effect that there shall be at least 8 square feet of window space, of which at least one-half shall be movable and available for ventilation, for every 100 square feet of floor space of any room used for human habitation, and that such windows shall have unobstructed access to the open air and be conveniently reached by the occupants of the room.

Most of the tenements in Honolulu are of frame construction, and they seldom exceed two stories in height. The regulations for tenements outside of Honolulu are practically the same as those governing such buildings within the city. Some of the most insanitary living places seen in Hawaii were met with in out-of-the-way villages and in small towns near the larger plantations, but outside the jurisdiction of the plantation authorities. Such tenements were usually located on small freeholds and were often the resort of the lawless and vicious hangers-on, the gamblers and panderers, who gather about every large body of laborers. Some of these places were so overcrowded that there was evidently little or no attempt to enforce the law in their case, and even the construction of the buildings betokened the entire nonobservance of the legal requirements just cited.

Upon the whole the Hawaiian Islands are healthful. The death rate for 1904 was 17.55 per 1,000 inhabitants. Malarial diseases are not common, and yellow fever and Asiatic cholera are unknown. The white population lives under conditions quite as favorable for health as those prevailing in any tropical country or in most parts of the American mainland.

The quarters of plantation employees are usually comfortable and kept in good repair. The Orientals are fairly cleanly in their habits and those now on the plantations do not appear specially addicted to overcrowding. It used to be said formerly that the Chinese liked to be herded together in great barracks with tiers of curtained bunks one above the other. From motives of economy they will overcrowd in rented tenements unless prevented by the authorities, and it is fair to presume that they object less than many other classes of labor to limited quarters. But when they are provided with ample room they occupy it as a rule—and, to say the least, they can be taught to live under better sanitary conditions. The Koreans resemble the Chinese in all these respects. The Japanese will live up to almost any standard you enable them to set for themselves, and where provided—as they are in some places—with tidy individual cottages will gradually build up attractive homes. Their domestic machinery is somewhat simpler than that of an American or European laborer, but adequate for the demands of health and no small degree of comfort. The Portuguese excel all other unskilled workers as home makers. With rare exceptions their houses are plainly, but neatly and not inartistically, furnished; scrupulously clean, and surrounded oftentimes with flowers and well-tilled gardens. The Porto Ricans are the least conscious of filth and squalor of any people in Hawaii, and their quarters are seldom models for any other nationality. The Hawaiians offer examples of almost every style of living, from the half-naked mountaineer or remote coast dweller in a grass hut to the wealthy landowner, whose family enjoys all the elegancies as well as comforts of a civilized home. *While as individuals they disregard many of the laws of hygiene, with*

disastrous results to themselves as a people, their inherited love of fresh air and water and ample spaces is a saving grace that prevents their degenerating into a slum population.

Camp sanitation is a matter that receives careful attention upon the larger plantations, where the outbreak of an epidemic disease among the laborers would be a business disaster of the first magnitude. Regular scavenger forces are employed, and the camps are cleaned daily, or at least several times a week. On all plantations water is provided in abundance from uncontaminated sources. Many of the plantations support hospitals and dispensaries for their employees, and in some instances trained nurses are in attendance. The more important plantations employ a physician whose services are at the disposal of all unskilled employees either gratis or for a small monthly fee. During the days of contract labor such medical attendance was required by law, and it has been continued without modification in most places since the contracts were abolished. Recently, however, especially upon the island of Kauai, the custom has arisen of charging employees 10 cents a month for medical and hospital attendance. This assessment does not cover the whole expense to the plantation. In some cases overseers and other salaried employees are similarly assessed 1 per cent upon their salaries for medical and hospital expenses. On one large plantation all laborers receiving not over \$20 a month pay 10 cents, those receiving from \$20 to \$30 pay 15 cents, and those receiving from \$30 to \$60 a month pay 25 cents for medical expenses, which entitles them to free medical attendance, medicines, and hospital accommodation for themselves and the members of their families. The medical expenses of a plantation generally exceed \$2 a year for each employee, approaching \$3 in several instances; so these assessments are not intended to cover the entire cost of this department to the employers.

Upon all the larger plantations public baths are conducted for the use of employees. Sometimes these are partly supported by the employers, and sometimes they are entirely private enterprises, except that the bath house is usually supplied by the plantation. On some plantations hot water as well as the building is provided. Other planters supply free the fuel for heating the water. In other instances the bath house is leased to a contractor, who supplies his own fuel and charges the employees from 25 to 35 cents a month for bathing privileges. The Japanese bathe daily. On some plantations the Koreans have adopted Japanese customs in this respect. Hot water is used, and a single large tub—in which both sexes bathe together indiscriminately—suffices for the needs of a number of laborers. Private bath houses, conducted in much the same manner, are common in the Oriental quarters of Honolulu.

The provisions made by public authorities and private employers to protect the health of residents and working people in Hawaii appear upon the whole to be adequate and quite equal to those usual in communities upon the mainland.

EDUCATION.

Under the powerful and urgent influence of their rulers the Hawaiian people rapidly acquired a knowledge of reading and writing their own language during the early years of missionary propaganda. Between 1820 and 1830 there were some 900 schools in the islands, with an attendance that reached a maximum of 52,000 pupils, most of whom were adults. The earliest school laws were enacted in 1841, and for the sixty-five years since that date public schools have been continuously in existence, and attendance has been compulsory. The school age is from 6 to 15 years. Practically all Hawaiians under 50 years of age can read and write their native tongue, and nearly all Hawaiians and Portuguese under 20 years of age can read and write English. The number of children of school age attending school is 96 per cent of the total, and in the case of Hawaiians this proportion rises to 98, and of Part-Hawaiians to 99 per cent. There are 204 schools in the Territory, of which 147 are public and 57 private institutions. The public schools are absolutely free, and are open to the whole population regardless of race or color. The number of teachers employed in Hawaii is 646, of whom 189 are males and 457 females. The public schools are increasing in attendance and in the teaching force much faster than private schools, while the number of institutions of the latter character has recently been decreasing. Higher education is as yet furnished only by private or endowed colleges, no Territorial university having been established; but there are several public high schools in the islands providing secondary courses that enable their graduates to enter American colleges and universities, and technical and agricultural courses are given in both public and endowed schools established for this purpose. There is also a public normal school in Honolulu.

The organization of the public schools, their programmes and courses, the divisions of the school year, and also their material equipment, such as furniture, apparatus, and text-books, are identical with those of the mainland. Many of the teachers are graduates of American normal schools and colleges. The Hawaiian school system has been since a time long prior to annexation essentially a part of the school system of the United States. By a law recently enacted the American flag floats over every public school building in the Territory.

Of the 400 teachers employed in the public schools 387 are Americans, the term being understood to include all persons born in Hawaii and citizens of the Territory as well as those born on the mainland.

One hundred and forty-eight of these have more or less Hawaiian blood in their veins, and 4 are of Chinese parentage. The proportion of foreign teachers in the private schools is considerably larger. Practically all the public school teachers who are not Americans under the definition quoted are of British birth and closely assimilated in language, sympathy, and educational methods with their American colleagues. The private schools, which include several missionary institutions conducted by different denominations, employ 7 Japanese and 19 Chinese teachers, whose services are required in instructing pupils of their own race.

In the remoter parts of the Hawaiian Islands it is difficult for teachers to secure comfortable board or house accommodations, and therefore the educational department is compelled to provide teachers' residences in such localities. One assistant teacher is employed at a salary as low as \$180 a year and one other at \$240. Several country teachers in small districts receive \$300 each. These salaries are in addition to free house rent. The larger country schools and village centers pay from \$510 to \$720 per annum to their teachers, frequently with residence. Principals and the higher-paid special teachers in Honolulu and Hilo receive from \$1,200 to \$2,400 per annum. All but 64 of the teachers in the public schools are certificated.

All the public schools are supported directly by the Territorial treasury and under a central administration. The annual disbursements for their support approximate \$370,000, six-sevenths of which is paid out in salaries to teachers and the administrative staff, while the remainder is used for the purchase of materials and supplies, not including text-books. Buildings are erected under special appropriations. At the time the report for 1904 was rendered by the superintendent of public instruction, 25 school buildings, including a new normal school and several other large buildings in Honolulu and Hilo, were under construction or had been completed since the previous report. There were also 5 combined schoolhouses and residences and 6 teachers' residences in process of erection. The appropriations for new buildings for the subsequent biennial period were \$133,350.

The principal industrial and technical school conducted by the Territory is at Lahainaluna, on the island of Maui, at an institution founded by the early missionaries, but recently transferred by the controlling board to the public authorities. An endowed institution in Honolulu, known as the "Kamehameha Schools," which receives only pupils of Hawaiian or Part-Hawaiian parentage, also has an excellent technical department and a school farm where practical and theoretical agriculture are taught. The government maintains two industrial schools—one for boys and one for girls—where wayward pupils are received, and the regimen is of a disciplinary as well as an educational character. In the public schools proper there are pupils learning sewing,

knife work, and mat weaving, and instruction is also given in agriculture. A special lace teacher is employed in Honolulu, whose classes enrolled 85 in 1904.

Some of the most significant figures presented by the educational department are those relating to the nationality and race of pupils attending school in the Territory. They are given in the following table:

NUMBER AND NATIONALITY OF PUPILS IN SCHOOLS IN THE TERRITORY OF HAWAII IN THE YEARS 1902-1905.

[From the reports of the governor of the Territory of Hawaii.]

Nationality.	1902.	1903.	1904.	1905.	Per cent of increase from 1902 to 1905.
Hawaiian	4,903	4,893	4,877	4,972	1.41
Part-Hawaiian	2,869	3,018	3,234	3,284	14.46
American	812	799	877		
British	240	217	205		
German	357	285	321		
Portuguese	4,124	4,243	4,345	46,556	3.11
Scandinavian	98	194	125		
Porto Rican	590	638	656		
Others (a)	151	143	189		
Chinese	1,395	1,664	1,650	1,985	42.29
Japanese	1,993	2,521	2,920	3,609	81.08

a Nationalities not reported in detail.

The table given shows that during the four-year period 1902 to 1905 the pupils of Hawaiian nationality attending the schools increased less than 2 per cent. The increase in the attendance of Part-Hawaiians was nearly 15 per cent. The figures secured for 1905 did not separate the races other than Hawaiian and Asiatic, but the increase in all the nationalities combined other than Hawaiian, Part-Hawaiian, and Asiatic was only 3.11 per cent. As against this increase of Hawaiians and Caucasians, the number of Chinese among the pupils in the schools increased during four years over 42 per cent and the Japanese over 81 per cent. In 1905 the children of Asiatic descent formed over one-fourth of the entire school attendance. The children of the Japanese alone increased during these four years over five times as rapidly as the Part-Hawaiians and over twenty-five times as rapidly as the children of all the Caucasians combined. The increase of the Japanese during the years given has been in an increasing ratio. The increase in 1905 alone over 1904 was nearly 25 per cent.

Whether it will be possible to maintain a typical American school system in the face of such a swamping by Orientals is a question for serious consideration. Possibilities in this matter have already been discussed in the section dealing with the Orientalization of the Territory and its results,^(a) and, as was pointed out, the question is whether the American school system can Americanize the Orientals in Hawaii,

^a See page 403.

or whether the school system itself will not be Orientalized through the overwhelming dominance of Asiatic children among the pupils.

In addition to availing themselves of the public schools, the plantation Japanese support their own schools, which are often conducted in the Buddhist temple by the priest or one of his assistants. Japanese reading charts and text-books, arranged almost exactly like those used in American schools, but published in Japan, with maps and engravings that would be like our own if they were not so very Japanese, are employed, and the same subjects are taught, apparently, that would be taught in a public school in America. Usually these schools are in session only on days or at times when the public schools are closed, so that the children may attend both. The Japanese teachers are supposed to inculcate patriotism and loyalty to the Island Empire and the Mikado as an essential part of their instruction, and the latter's portrait usually hangs in the schoolroom. These schools are supported by the voluntary offerings of the Japanese and such small fees as may be agreed upon by the laborers in the vicinity, and one of the purposes of the Central Japanese League was the support of Japanese schools in Hawaii.^(a)

BENEFIT SOCIETIES.

Several of the leading fraternal and benefit organizations of the United States have branches in Honolulu, and both the Odd Fellows and Masons own buildings and valuable property in that city. There are comparatively few lodges outside of the metropolis. None of these, however, is distinctively a workingmen's society. The street-railway employees in Honolulu have a benefit association. Upon some of the plantations there are clubhouses and libraries for white and Hawaiian employees, but this class of workers occupies a position above that usually associated with the subjects of welfare undertakings. One plantation conducts a day nursery for Japanese children, where the little ones are entertained and fed during the time that their mothers are engaged in the fields. The Orientals also have temperance and religious associations, confined usually to a single plantation.

Among the general societies having a chief part of their membership among plantation workers, the two Portuguese benefit associations are easily the most important. The oldest of these is the Benefit Society of Saint Anthony, founded in Honolulu in 1876. Membership is confined to Portuguese or their descendants. Its object is to assist members incapacitated by illness, accident, or age for supporting themselves, and to provide for funeral expenses. The society is also pledged to support any movement looking to the moral and intellectual improvement of the Portuguese in Hawaii. During sickness or while recovering from accidents a member may receive \$1.25 a day

^a See page 398.

from the society, providing his condition is not caused by immoral or illegal acts, or due to drunkenness. It is left to the general assembly of the society to determine what pension shall be paid to incapacitated members who are likely to be a permanent charge upon its funds. Upon the death of a member an assessment of \$1 upon each of its surviving members is made by the society, which is paid to the widow, or children, or parents; but in case there are no near relatives, two-thirds of the assessment is returned to the funds of the society, and the remainder expended for the funeral of the deceased. An assessment of 25 cents is levied for the assistance of a member upon the death of his wife. An admission fee ranging from \$2.50 for children under 15 years of age to \$10 for members between 35 and 45 years of age, which appears to be the maximum age of admission, is charged, and the members are liable to monthly assessments of \$1, and a quarterly assessment of 50 cents for the invalid fund, besides a limited number of special assessments in case of the death of members. This society owns a building in Honolulu, costing, with site, over \$12,000, besides having over \$16,000 in the bank or invested in mortgages and other property, bringing its total assets up to \$28,000 above its present liabilities to members. Its total receipts for 1904 were \$18,499.45, and its expenses \$15,139.41. Of the latter over \$2,000 was paid in pensions to invalid members, and over \$8,000 for relief and medical attendance. The membership at the close of 1904 was 1,201.

The Portuguese Mutual Benefit Society of Hawaii, known in Portuguese as the "Sociedade Lusitana Beneficente de Hawaii," was founded in 1882, and has between 1,100 and 1,200 members. Its objects, dues, and payments to members are with unimportant modifications the same as those of the older society. Its receipts during 1904 were \$17,587.90, and it spent about \$15,000 in assisting its members and orphans. Its reserve fund is about \$5,000. The net assets of the society over all liabilities are \$45,012.50. It has about \$20,000 invested in land and buildings and \$22,000 in mortgages.

These societies are evidently formed after the same model as the excellent benefit associations, usually organized along provincial lines, that one encounters among the Spaniards in Cuba and Porto Rico. They give evidence of a high degree of thrift and intelligence in cooperative effort among these Latin peoples. It is no small accomplishment for a few thousand imported plantation laborers, mostly driven to Hawaii by distress in their own country and arriving in a nearly indigent condition, to have insured themselves and their families against the worst economic consequences of illness and death, and to have accumulated so large an amount of collective funds during the two or three decades that they have been settled in the Territory.

The Japanese in Honolulu have a benevolent society, with objects similar to those of the Portuguese societies just described. D

the six months ending with March, 1905, this society received \$4,544.70, and at the close of that period there was a balance of \$672.13 in the treasury. The number of members aided was 51, of whom 28 were received and cared for at the Japanese charity hospital. Funeral expenses were paid for 7 and 7 received passage to Japan.

A number of other organizations of Japanese exist in Hawaii, some of which are benevolent associations, while others have social, political, and mercantile objects. One of these possesses considerable importance from a labor standpoint. Originally started as a national society in Hawaii, with the general welfare of Japanese residents in view, it has developed in some places into something akin to a trade-union organization. This society was formed as the outcome of a convention of representative Japanese, held in Honolulu on November 30, 1903. It is known as the Central Japanese League,^(a) and the preamble of the constitution states its purposes to be: "In order to exercise beneficial control, and to elevate Japanese residents, especially in matters affecting labor and trade of Japanese who are now or who may hereafter become sojourners in the Territory of Hawaii, the Central Japanese League, in a convention of delegates from all the islands assembled at Honolulu, do proclaim the objects of such league to be as follows: (1) To cultivate fraternal feelings between Japanese and others; (2) to assist in stimulating industrial and other education; (3) to elevate the moral tone in a broad and enlightened spirit; (4) to infuse into our fellow-countrymen the knowledge of self-control, foresight, prudence, and frugality. It will be the effort of the officials of this league to instruct all Japanese to conform strictly to the laws and regulations of the Territory of Hawaii, to encourage strict business principles and integrity in the business community, and to exercise beneficial control over Japanese field laborers in particular. The officials of the league will act as a conciliation board in all matters of dispute between laborers and their employers, so that their acts may not be in conflict with the laws and regulations of the Hawaiian Islands, and not in conflict with the legitimate interests of their employers."

A committee of 15 members was appointed to suggest and devise ways of preventing an exodus of Japanese from Hawaii to California, using the influence of the Japanese consul-general at Honolulu, and if possible of Japanese hotel keepers in that city and of the local steamship companies, to diminish such emigration. It is made obligatory upon local branches of the league to assist newly-arrived Japanese, whether members or not, "to endeavor to reduce to a minimum the number of the lawless and idle element," to give financial and other assistance to the sick, and to render gratis clerical assistance to members. The convention also provided for the establishment of Japanese

^a See also page 398.

schools, and appropriated a sum for the support of those not at present in a position to provide for themselves. It formed a subsection, known as the Educational Association of the Central Japanese League, and made regulations to govern the qualifications of teachers and the selection of text-books in Japanese schools.

At the time the league was formed one of the considerations leading to its organization was stated to be: "When the Japanese laborers were first introduced into this country there were provided for them several official inspectors. These inspectors played an important part in settling trouble among the Japanese, as well as misunderstandings between planters and laborers. This system worked admirably, but unfortunately passed into disuse. We are cognizant of the fact that most of these laborers are in constant need of attention and advice. They are tractable under the guidance of a good leader, and equally amenable to the control of an unscrupulous schemer. Slight provocations, that once would have passed unnoticed, are now sufficient to cause a laborer to desert his plantation." It seems to have been the idea of the promoters of the league that its agents in the different parts of the Territory would take the place of the corps of official inspectors formerly employed. But they had reckoned without regard to changed conditions in the islands and the different character of the laborers themselves. The days of penal contracts and docile obedience were past, and the Japanese upon the plantations entertained new views of their rights as employees and as individuals. The district agents were made elective, and instead of being controlled by the Japanese officials at Honolulu and exerting themselves as peacemakers in accordance with the wish of the latter, appear to have become stubborn assertors of the rights of labor and even on occasion promoters of discord. A Japanese newspaper in Honolulu, which is supposed to represent labor interests, does not spare some of these local agents of the league. "Some of them are unprincipled grafters, who are not above stirring up a strike for the sake of the money they may make out of the fees collected to support it. They are idlers and trouble-seekers, for these are the classes which have the most time to give to seeking such jobs." The Japanese consul-general, who is president of the league, felt called upon by the increase of strikes and other labor difficulties attributable to this organization to issue a circular letter to the branches, deploring the appearance of strikes among the members of the league and the fact that a "class of ignorant, selfish, and unreasoning persons, contrary to the principles of the Central Japanese League, secretly and sedulously attempt to divert the organized power of the league in order to satisfy their greedy ends."

The well-meant efforts on the part of the chief officials of the league to prevent strikes had about as much influence over the Japanese laboring population of Hawaii as similar benevolent attempts to solve at

a single stroke all the difficulties of employers and employees have had in America. Some of the most serious strikes that have occurred in the islands have taken place subsequent to the issue of this declaration. They will be considered in a succeeding section of this report.

TRADE UNIONS.

Although some independent workingmen's societies had existed in Hawaii previously, the first charters granted to unions in the Territory by national and international organizations of which there is any present record date from about the time of annexation. In May, 1899, a year prior to that event, a charter was issued to the boiler makers' union, with 35 members. This union still exists at Honolulu, though its membership has fallen to 20. The second charter was granted in January, 1900, to the electrical workers, with 14 members. This society has since disbanded. The following December 21 the machinists received a charter from the international association. This union was broken up as a result of a strike for an eight-hour day, conducted by the general organization in 1901. The members in Honolulu now pay dues to the San Francisco lodge. In January, 1901, the plumbers, with some 40 members, were granted a charter. This union still survives, with 7 active members, the loss in strength being due in great part to the return of workingmen in this trade to California after the close of the building boom. Charters were subsequently issued to the following unions in Honolulu: Blacksmiths, with 14 members, in April, 1902; carpenters, in October, 1902; to the hackmen, from the Team Drivers and the International Brotherhood of Teamsters, with 8 charter members, in July, 1903, and to the longshoremen in September of the same year. Besides these societies the Sailors' Union of the Pacific has long had resident members and a station at Honolulu, and the following local unions, some of which doubtless held charters from general organizations, were in existence: Bricklayers, car builders, iron molders, painters, plasterers, and typographers.

On October 11, 1901, a meeting was held for the purpose of forming a trade and labor council in Honolulu, and such an organization was perfected the following December by 11 unions. These were the blacksmiths, boiler makers, bricklayers, carpenters, electrical workers, iron molders, painters, plasterers, plumbers, sailors, and typographers. This council was reorganized and received a charter from the American Federation of Labor in February, 1903. It now consists of delegates from 6 active unions, the other organizations mentioned, except the bricklayers who are still active but not affiliated with the council, having become dormant or disbanded. The approximate active membership of these 6 unions in June, 1905, was as follows: Blacksmiths, 12; boiler makers, 20; carpenters, 42; hackmen, 7, and sailors, with a varying number of resident members, brick-

layers have about 12 members in good standing upon their rolls. Besides these societies there is a Masters', Mates', and Pilots' Association, and many members of unions in California keep up their dues and remain affiliated with the home organization, although they meet informally in Honolulu and hold no local charter. The decline in the number and the membership of trade unions in Honolulu is to be ascribed chiefly to the return of many of the original members to California. The influx of skilled labor during the Spanish-American war and at the time of annexation exceeded the permanent demands of the Territory, and such a back current of migration to the Coast was to be anticipated. Laboring men maintain that the growing competition of the Japanese in all classes of occupations is responsible for a part of this movement. They are doubtless right in this contention.

An interesting quasi-labor agitation arose in the small town of Hilo early in 1903. The special significance of the movement lies in its having been a general organization of all classes, except large employers, against the Oriental. An association, including a few small merchants, farmers, and government employees, but predominantly composed of wage-earners, was formed for the express object of opposing the entry of Asiatics into skilled trades and mercantile pursuits. This organization, which was known originally as the Federation of Allied Trades of Hilo, was very successful for a time, attaining a membership of nearly 600, and having a considerable amount of funds at its disposal. While nominally a federation, this society was not formed of subordinate bodies but was an association of individuals of many different trades and professions. Many of the expressed objects of the society, as enumerated in the constitution, were evidently borrowed from the trade-union movement. Such were the nine-hour day, weekly payment of wages, a minimum wage, labor holiday, opposition to convict labor, and the establishment of an arbitration board. An apprentice system was favored. The only direct reference to Asiatic labor appeared in the preamble of the constitution, and was as follows: "We must compete with Asiatic labor. There are some of the allied trades in this federation that may have to work with Asiatics. In such case it is our duty to prove our superiority and demonstrate that the members of this organization may be depended upon in all circumstances. Therefore, whatever we undertake we must perform. If we begin a job we must complete it or secure some one to take our place." This admonition was probably intended especially for the Hawaiian members, who are not always reliable workers. A chief difficulty of labor organizers in Hawaii is the instability of native, and to some extent of Portuguese, workers.

The following table was compiled from the records of the Federation of Allied Trades, with a view to showing the occupations, citizenship, and literacy in the English language of the citizen labor of a repre-

sentative small town of the Territory. The term Hawaiian was used upon the rolls of this society to indicate persons born in the islands, without reference to race. Nearly all the Hawaiians under this definition who do not read and write English are of Portuguese parentage. Minors born in the Territory are considered citizens if they are reported to possess the necessary educational qualifications; though there are some possible exceptions to this in case of Hawaiian-born Portuguese who have never exercised the right of suffrage and may be understood to retain their allegiance to the Crown of Portugal:

OCCUPATIONS, CITIZENSHIP, AND LITERACY OF THE MEMBERS OF THE FEDERATION OF ALLIED TRADES OF HILO.

Occupation.	Nationality.	Citizens.	Not citizens.	Read and write English.	Do not read and write English.	Total.
Bakers	American	1		1		1
	German	1		1		1
Barbers	American	1		1		1
	Portuguese	4		4		4
Blacksmiths	American	1		1		1
	Galician	1		1		1
	German	1		1		1
	Hawaiian	1		1		1
	Portuguese	1	4	4	1	6
	Russian		1	1		1
Boatman	English	1		1		1
Boiler maker	American	1		1		1
Bricklayer	Australian	1		1		1
Butcher	English	1		1		1
Cabinetmaker	Russian		1	1		1
Carpenters	American	5		5		5
	English		1	1		1
	German	2	1	3		3
	Hawaiian	17	1	17	1	18
	Norwegian	1		1		1
	Portuguese	3	10	5	8	13
	Russian	1	1	2		2
	Swedish	1		1		1
Civil engineer	Russian		1		1	1
Clerks	American	1		1		1
	English	1		1		1
	Hawaiian	18		18		18
	Portuguese	3	1	3	1	4
Coachman	do		1	1		1
Conductor	Irish	1		1		1
Confectioner	American	1		1		1
Electricians	do	1		1		1
	Hawaiian	2		2		2
	Portuguese	1		1		1
Engineers, locomotive	American	2		2		2
Engineers, stationary	do	1		1		1
	Hawaiian	2		2		2
	Portuguese	1		1		1
Farmers	American	1		1		1
	Austrian	10		10		10
	Hawaiian	1		1		1
	Russian	2		2		2
Firemen	Portuguese	1	1	2		2
Fishermen	Hawaiian	2		2		2
Groceryman	Portuguese	1		1		1
Guard, jail	do	1		1		1
Hackmen	Hawaiian	2		2		2
	Portuguese	1	2	3		3
Harness makers	Austrian		1	1		1
	Hawaiian	5		5		5
	Portuguese	2		2		2
Horseshoers	American	1		1		1
	Hawaiian	2		2		2
	Irish	1		1		1
Janitors	Portuguese	1	1	1	1	2
Jewelers	Hawaiian	1		1		1
	Portuguese	1		1		1

OCCUPATIONS, CITIZENSHIP, AND LITERACY OF THE MEMBERS OF THE FEDERATION OF ALLIED TRADES OF HILO—Concluded.

Occupation.	Nationality.	Citizens.	Not citizens.	Read and write English.	Do not read and write English.	Total.
Laborers.....	American.....	3		3		3
	Austrian.....	1		1		1
	Danish.....	1		1		1
	English.....	1		1		1
	French.....		2	2		2
	Hawaiian.....	111	6	108	9	117
	Porto Rican.....		3		3	3
	Portuguese.....	8	120	38	90	128
	Swedish.....	2	1	3		3
Lumberman.....	American.....	1		1		1
Machinists.....	do.....	2		2		2
	German.....	1		1		1
	Hawaiian.....	1		1		1
	Russian.....	1		1		1
Manager, soda.....	Hollander.....	1		1		1
Masons, stone.....	American.....	1		1		1
	Belgian.....	1		1		1
	Hawaiian.....	2		2		2
	Portuguese.....	1	6	1	6	7
Mill hands.....	Hawaiian.....	1		1		1
	Portuguese.....	1		1		2
Molder.....	Russian.....		1			1
Oiler.....	Portuguese.....		1			1
Overseers.....	do.....	2		2		2
	Hawaiian.....					1
	Norwegian.....	1		1		1
	Portuguese.....					1
	Spanish.....		2			2
Painters.....	American.....			3		3
	Hawaiian.....	23		23		23
	Portuguese.....		2	1	2	3
	Swedish.....	1		1		1
Plumbers.....	American.....	1		1		1
	Hawaiian.....	1		1		1
	Portuguese.....	2		2		2
	Scotch.....	1		1		1
Policemen.....	American.....	1		1		1
	Hawaiian.....	6		6		6
	New Zealander.....	1		1		1
	Russian.....	1		1		1
	West Indian.....		1			1
Printers.....	American.....	3		3		3
	Hawaiian.....	1		1		1
	Portuguese.....	3		3		3
Railroad employee.....	Hawaiian.....	1		1		1
Restaurant keeper.....	do.....	1		1		1
Road superintendent.....	Portuguese.....	1		1		1
Saloon keepers.....	Hawaiian.....	1		1		1
	Portuguese.....	1		1		1
	German.....	1		1		1
Shoemaker.....	Portuguese.....	1		1		1
Singer.....	Hawaiian.....	1		1		1
Stableman.....	Portuguese.....	1		1		1
Stevedores.....	Hawaiian.....	17	1	17	1	18
	Portuguese.....		2			2
Tailors.....	German.....	2		2		2
	Portuguese.....	2		2		2
Teamsters.....	American.....	2		2		2
	French.....		1			1
	Hawaiian.....	11	1	10		12
	Portuguese.....	6	21	18	8	26
Tinsmith.....	German.....	1		1		1
Trimmer.....	Hawaiian.....	1		1		1
Warehouseman.....	do.....	1		1		1
Watchmen.....	Portuguese.....		2			2
Unclassified.....					29	29
Total.....		360	203	423	162	626

^a Including one person whose citizenship and ability to read and write English are not reported.

^b Including three persons whose citizenship and ability to read and write English are not reported.

This federation probably enrolled a majority of the nonoriental workers of Hilo and the vicinity. Although it represented a movement in favor of "citizen labor," more than one-third of the members

were not citizens of the Territory. The great variety of occupations and the comparatively small number engaged in any one trade are characteristic of a small community, and indicate the futility of attempting to form organizations on strictly trade-union lines. With over 300 votes at its disposal this association promised to be influential, not so much in regulating the relations of employers and employees in matters usually adjusted by collective bargains between labor organizations and employing interests as in securing legislation favorable to citizen labor and using trade influences to prevent the patronage or employment of Orientals. The passage of the law requiring the employment of citizens upon public works undertaken by the Territory is said to have been due in part to the agitation conducted by this society.

About six months after the federation was organized it was prevailed upon to change the constitution of the society, dividing it into a number of trade unions similar to those upon the mainland, including workers in single trades so far as possible, with a trades and labor council as the central organization. The parent association was thus divided into 6 unions, 4 of which—the carpenters, painters, longshoremen or stevedores, and teamsters—having the required 10 members, received charters from the American Federation of Labor. The remaining members were formed into two composite societies, known as Federal unions No. 1 and No. 2, which also received charters. The preamble of the constitution of each of these 6 societies was adopted without modification from the preamble of the constitution of the original federation.

The division of forces resulting from the reorganization of the workers appears to have been impolitic, however, and under the new arrangement they never exercised effective influence either politically or along trade-union lines. All of the unions ultimately dissolved or became dormant except that of the carpenters, which, in the spring of 1905, still retained its charter and was nominally in existence, though of little importance as a factor in determining terms of employment for its members.

Any effort to organize the working people of Hawaii, whether white or Oriental, meets with determined opposition from employers. This is due in part to the fact that trade unions are a rather new thing in the Territory, and their functions are but partly understood. Employers who have always dealt with unorganized labor naturally distrust unions, the more because they are unfamiliar. Many of them maintain that industrial conditions differ so greatly in Hawaii from those upon the mainland that a different method of dealing with them is necessary. Most of this hostility, so far as it is different or exceeds the general opposition to labor organization on the part of employers, is to be

ascribed to two causes. It is felt that trade unions are and always will be opposed to Oriental labor, constituting local centers of hostility to the policy of the planters; and the limited number of skilled workers in the Territory, the difficulty of securing men promptly from other sources in time of urgent need, and the extreme dependence of the sugar industry upon a reliable supply of skilled and supervisory as well as of unskilled labor, especially during the crop season, make employers extremely sensitive to any movement that looks toward united action of any kind on the part of their employees. Some exceptions to this sentiment are to be found in Honolulu itself, especially among builders and contractors and in other industries where the competition of the Asiatic is felt equally by employers and employees. In such cases the former look with complacency upon any movement among their workers that looks toward the exclusion of Orientals from the occupations in which they are interested.

Upon the whole the trade unions of Hawaii are imported rather than indigenous organizations. The form they have developed in the United States is perhaps not that best adapted to secure the real interests of white workers in the Territory. The primary question in the latter country is how to meet the growing competition of the Japanese workingman. That might be solved more easily by an alliance of all interests, employing and mercantile as well as wage-earning, affected by such competition, such as was attempted at Hilo, than by exclusive trade organizations, which are better adapted to fight the industrial battles of the workingmen in the other parts of the Union. On the other hand, however, the labor movement in Hawaii, whatever its purpose, is likely to be associated more and more closely with that upon the mainland. The conditions upon the Pacific Coast and in the Territory are growing more similar. Terms of employment proper are becoming more important in Hawaii, with its increasing transportation facilities and consequent nearness to the labor markets of the world. Oriental competition in one form or another is forcing itself more prominently upon the attention of workingmen in all our Western States. Therefore the trade union in Hawaii will always have the advantage of being a part of the greater whole—of receiving support and exercising influence through a much more powerful national organization than the Territory by itself could ever develop. Consequently it is practically certain that the trade-union movement in Hawaii has come to stay; that it will in time acquire greater importance than it has in the past, and that it must be reckoned with in forecasting future conditions of employment in the Territory.

STRIKES.

The strikes affecting industries other than sugar plantations, recorded since the report of 1902 was published, were of little or no importance; but those occurring among Japanese employees upon sugar plantations have increased in frequency and seriousness. The latter are developing features not hitherto observed in the Territory, and portend considerable embarrassment in the future.

The principles underlying Japanese labor agitation in Hawaii are different from those governing similar movements in America and Europe. Japanese workers have developed as yet but rudimentary class consciousness. Few of them conceive of the labor movement as a world-wide phenomenon. Their class sympathies are not international. Coming to a land where their economic condition is normally much better than in their own country, the primary motive for inaugurating a strike is not usually to secure higher wages. On account of their intense race solidarity and the powerful influence over the workers exercised by such organizations as they possess, the "closed shop" question does not have to be fought out with their employers. Where a difference of opinion among the laborers as to the justice or policy of beginning or continuing a strike arises, the question is usually settled in their own ranks, and no appeal is made to employers in the matter. Violence among themselves sometimes occurs, but is seldom directed against workers of other nationalities or the representatives of their employers, unless there has been some special and acute provocation.

Partly because they are temperamentally a good-natured people and partly because they have little sense of class antagonism, the Japanese seldom manifest sullenness or personal ill will in their disputes with employers. They do not feel any hostility toward employers or capitalists as a class, nor do they feel that they have economic rights to be asserted as a principle. In fact, the Japanese as a race do not take to generalities, and the working people who migrate to Hawaii have an exceedingly simple and concrete view of what is to be gained from their employers. They do assert and enforce personal rights—as men, not as workmen—by strikes. An unjust act to one of their number, or personal violence on the part of an overseer toward a laborer of their own nationality, is resented with a vigor and directness that takes no account of economic results, either for the employer or for the strikers. Poor men will sacrifice a week's or a month's wages, if necessary, to secure the discharge of a brutal overseer. A few strikes have been begun primarily for the purpose of securing a higher rate of pay or a more equitable distribution of wages. When the relations of the laborers upon a plantation with their employer once become unsettled the occasion is used to present a multitude of demands and griev-

ances, many of which are of trivial importance. This usually protracts these struggles through a long period of argument and compromise. These difficulties are the greater because the Japanese have no settled labor traditions; they are not conducting a regular campaign for improving their class like American and European trade unionists, and therefore they are unsettled and capricious when it comes to concluding a bargain with their employers. They do not always know just what they want. Though they limit their objects to concrete things, like higher pay for some field operation, the discharge of an unpopular overseer, or an additional water pipe in their camps, and do not insist upon the recognition of their organization, the adoption of a union wage, or any concessions to the principle of the labor movement, the category of petty demands is sometimes as difficult to settle as are questions of much greater intrinsic import in strikes upon the mainland.

Among the many disputes between plantation employees and employers that have occurred during the three years since the publication of the last report the following two are described in detail, not because they were more important than some others, but because they are fairly representative of the causes that lead to such disturbances and developed most of the characteristic features which attend them.

The first of these strikes occurred on the Waialua plantation, one of the largest establishments in the islands, employing nearly 2,000 men, in December, 1904. This was originally a strike for a higher rate per ton for cutting and loading cane. The Planters' Association, which establishes certain maximum rates, in order to prevent friction among the managers of neighboring plantations, had allowed 32 cents a ton for cutting and loading, which was the price prevailing the previous year. The men insisted upon a higher rate, asserting that prices of sugar were 1.3 cents a pound higher than the year before, that the rate paid for cutting had been lowered in 1903 on account of the low price of sugar at that time, and that the higher rate formerly prevailing should therefore be restored. If a higher rate could not be paid they asked that they be paid time wages, thus indicating that in their opinion the rate paid per ton would not enable them to earn as much as the field hands employed at daily rates. The manager refused to accede to these requests, and after several days of parley, during which they continued at work, the cutters and loaders struck. However, they waited until all the cane on the tracks, which would have been damaged by standing, had been ground before calling out the mill hands. Finally, all the Japanese employed in any capacity upon one of the two sections of the plantation were prevailed upon to join the strike. Squads of men were sent out, armed with clubs and other weapons, to force united action upon the recalcitrants. But the *men upon the other section of the plantation, which is about three miles*

from the mill, had so far refused to join the strikers. As a result, the Japanese of the first section marched in an armed body to the Kawai-loa, or second section, the following evening, and prevailed upon their fellow-workers there to join them. A force of police had been summoned to preserve order, but their services were not required. Men from all sections then organized a meeting and chose thirty-four delegates, with a chairman, to consult with the manager and present their grievances. It took a continuous session of twenty-four hours to select their representatives and formulate their complaints and demands. The latter were presented the following morning, and were 32 in number, 5 being for the discharge of employees. Three of these 5 demands related to Japanese, one to an overseer, another to the hospital nurse, who was accused of accepting presents from patients, and the last to the preacher sent out by the mission board but paid by the plantation. The first two were ultimately dismissed. In speaking of this the manager said: "Those who are familiar with the Japanese people will know and appreciate the fact that men of the class we have here are very jealous and suspicious of any man of their own nationality who, by better education or greater industry, rises to a higher position." The other two demands were for the discharge of a Chinese mill watchman who favored his friends among the Japanese at the expense of the others and an American water overseer who was charged with improper relations with female employees in the fields. The first demand was granted, and the American was to be discharged if the Japanese presented evidence that substantiated their complaints in court.

Five demands related to wages: That monthly wages be increased from \$16 to \$18 a month, which was refused; that rates for cutting and for loading be increased, which was also refused; that time and a half be paid for Sunday work, which was granted; and that the workmen be paid when called out at night to extinguish cane fires. The manager granted this last demand, saying at the same time, however, "That is the kind of thing that every man does for every other man; no man would stand by and see property destroyed." The delegates reported this remark to the laborers at a subsequent meeting and they voted unanimously to cancel this demand, "and that they would always be willing to turn out and put out fires, no matter what time or place, without any pay."

Several demands related to plantation administration, such as the limit of distance between portable tracks in the fields when loading, the abolition of stint work, and the time and manner of paying. All of these were granted, with one or two unimportant exceptions. Eleven of the demands were for better supplies of drinking water, water tanks, water-closets, repair of leaky roofs, and replacing of broken glass in houses. These matters were brought up simply because it

was a convenient opportunity, and, according to the statement of the manager, they were never refused when brought to his attention at other times. They were all granted without discussion.

At the first meeting the manager told the strikers that they had made a mistake in ordering out the men employed about the large pumping stations, as serious damage and delay might arise from the filling of the pumping pits. They agreed that this was so, and the next morning the pump men were back in their places.

In describing the general attitude of the men during this strike the manager of the plantation said: "During the three days that the strike lasted there was no show of violence or bad feeling toward the plantation itself or to any of the men on the plantation, except to men of their own nationality who refused to join the strike, or who spoke against it. With the exception of a day that some of the leaders spent in the open land near the office, the strikers kept entirely away from the office and mill, and spent all their time down on the beach. The plantation itself was never quieter or more orderly than during the three days of the strike. The only time that there was any show of violence was on the night when the Waiialua men, 400 or 500 in number, marched to Kawailoa."

The second strike of which special mention will be made occurred upon the Lahaina plantation, on Maui, late in May, 1905. The primary cause of this disturbance was the brutal beating of a Japanese laborer by a plantation overseer. The men at the camp where this laborer lived were the first to go out, with a demand that the overseer in question be discharged. There was considerable general dissatisfaction among the men, however, who had other grievances to air, and when the other camps took up the matter it became impossible to settle the difficulty by a concession of the first demand. In fact, the overseer responsible for the trouble was arrested and fined \$100 for assault, besides being discharged, two or three days before the men agreed to resume work.

This strike was accompanied by some violence. When the men from the camp where the original trouble occurred marched down to the mill camp in order to call out their fellow-workmen, some disorderly spirits caused an attack to be made upon the mill where the men were still working, and a number of windows were broken, although no serious property damage was done. Upon a subsequent evening the men started out to kill a Japanese contractor against whom they as a body appeared to have some grievance. The laborers have a peculiar idea that although they must obey the laws of the country and not molest the citizens or people of another nationality, they have a perfect right to take any measures they see fit with any of their own countrymen with whom they have an account to settle. A body of Hawaiian police was sent to protect the contractor's house, and in the attack that followed

one of the strikers was killed and two others wounded. This brought about a crisis, and additional police and a company of militia were summoned by steamer from Honolulu, while a posse was raised and the local militia was called out upon the island of Maui. However, no further violence was attempted, and there did not seem at any later time to be as much tension between strikers and others as characterizes comparatively mild disturbances of a similar nature in the States. Some 800 or 900 of the laborers assembled to have a conference with the manager of the plantation and other representatives of the employers and of the Government, without any appearance of ill-nature. It is doubtful if a single dangerous weapon could have been found among them.

The men brought forward a number of minor complaints, some nine of which received consideration. The discharge of four overseers was requested. Two of these, including the man who beat the laborer, were dismissed. A demand for higher wages was refused. This was not a vital point with the strikers, but presented more or less as a matter of course, although the rate of pay of laborers had been voluntarily increased \$2 a month by the planters at the beginning of the current month. Demands for more water and firewood, for a more convenient delivery of the latter, and for a pay day earlier in the month were all granted. One or two minor points were conceded. The Japanese had demanded the dismissal of the head overseer, who was an Austrian, but whom the laborers believed to be a Russian. This demand was not granted. They had also demanded that the white overseer of the women's gang be discharged upon the ground that he favored the pretty girls in assigning work, but this demand was refused.

With reference to this growing list of grievances, presented whenever the friction between plantation laborers and their employers comes to a head, it is only fair to give the Japanese side of this question as stated in a letter from an intelligent American-educated Japanese in one of the Honolulu papers: "The fact is that behind a strike like that at Lahaina, or like others which have recently occurred, there is always a long list of grievances which have been ignored by managers who usually do not take the trouble to understand them. The management is surprised when a strike begins by a list of 15 or 20 'demands,' and thinks they are made up for the occasion. If he had kept in touch with the difficulties of his men, he would know that they are the accumulation of months, perhaps years, of small troubles which need not have existed if there was any way for the laborers to make themselves understood."

Some strikes have been accompanied by a good deal of ill feeling on the part of the laborers toward the white employees of the plantation. Usually this sentiment is justified wherever it occurs, to judge from

the opinions of those employed upon the plantations or in close touch with plantation life. On one occasion where a series of labor difficulties occurred it was discovered that laborers were forced to join raffles conducted by overseers and their friends; that there was practically a gambling graft upon the plantation by which the whites were profiting, and that other abuses existed of which the proprietors and agents were entirely ignorant, and which they promptly remedied as soon as they came to their knowledge.

Moreover, plantation administration in Hawaii is at present passing through a stage of transition from the methods adopted and used successfully when the laborers were contract coolies, without many rights that employers were bound to respect compared with those of free laborers at the present time, to the methods which the changed conditions following annexation demand. The following quotation from a private letter from a leading official of the Planters' Association to a plantation manager who had recently experienced a troublesome strike describes the situation in more emphatic terms than an outside observer would feel justified in using: "In times past we got too much into the habit of treating the Japanese and Chinese as if they were more animals than men. We can not do this now, and it is not likely that the Japanese will stand being so treated when they themselves are an extremely polite race. So, while you must not give way to loafers for a moment, it would be well to be firm in a more kindly manner than was the custom ten years ago."

The old customs and the habit of regarding Japanese and other Orientals as people of inferior civil status as compared with whites still prevail in Hawaii and manifest themselves in a hundred unconscious acts on the part of managers and overseers, who have never considered that in the strict letter of the law residents of a foreign country domiciled within our territories have the same rights to protection of person and property and to privacy and respect as ourselves. At the time of the Lahaina strike militiamen and police went in squads to the rented quarters of the strikers in the town of Lahaina—not upon the plantation itself—entered without ceremony or shadow of legal right and roused the inmates, using persuasion that came but little short of force to get them out to a conference which the management desired to hold with the men and which they, in the exercise of their rights, declined to attend. One of the most liberal and progressive managers in the islands spoke with lively resentment of the criticism made by a judge of an act of one of his overseers, who had without legal authority or warrant forced open the door of a house occupied by Porto Rican laborers suspected of theft, dragged the occupants from their bed, and discovered stolen property in their possession.

At the time of the Lahaina strike considerable fear was felt at first

by some of the white residents on account of the violence and the collision between the police and the Japanese, and it was felt that in the face of the overwhelmingly Asiatic population the whites were in some danger. The police and the troops were kept at the plantation for several days, and the plantation management and some of the police officers were insistent in urging that Federal troops should be available for occasions of this kind. It was felt that these troops could handle the situation more aggressively and more quickly overawe strikers and bring them to submission. It was not known at that time that the governor of the Territory of Hawaii was vested with the power to call out the Federal troops without specific authorization for such call from the authorities at Washington. The legislature at its session of 1905 failed to make further provision for the maintenance of the Territorial militia, and a good deal of apprehension was felt over this fact until it was brought to light that the governor was clothed with unique power as regards the calling out of the Federal troops to guard property and suppress disturbances in time of strikes. Such an expedient, however, should be adopted only as a last recourse. The troops probably would overawe strikers and make them more amenable to plantation discipline, but this is not their function. Moreover, the use of Federal troops in an actual conflict between employers and strikers might prove very prejudicial to the interests of the plantations. It has been intimated that if such a necessity ever arose Japan might at once prohibit further emigration of laborers to Hawaii, a contingency that the business interests of the Territory do not desire at present to face.

It is perhaps inevitable that for a time the technical rights of laborers under American law will be disregarded. Perhaps it would be very difficult at first to administer a plantation without occasionally exercising authority not strictly in accordance with law. It must be remembered that our legal codes were made for a country where social conditions prevail quite different from those in Hawaii. But these facts do not make the present situation less undesirable or lighten the difficulties of either employers or of workmen.

There is hardly a doubt that strikes are promoted in some instances by Japanese hotel keepers, hackmen, gamblers, and others who are directly interested in having the men idle and spending money. At Lahaina the strikers had to move out of the plantation quarters and go to the hotels in the village, and the Japanese hotel keepers were actively agitating a continuance of the strike until some provision had been made for the payment by the plantation of the bills incurred by the strikers, from deductions to be made from the wages of the laborers. Both at this place and at the plantation of Wailuku, on the same island, where a strike occurred about the same time, the leader of the laborers' organization was a barber in a neighboring village not

in the employ of the plantation. In the former instance a majority of the strikers' committee was composed of men not working for the plantation.

The representatives of the Japanese consul were everywhere active in adjusting these difficulties, and their influence was important in preserving order. But the Japanese laborers are not quite so subservient to authority, even of their own Government, as commonly represented, or as they used to be in Hawaii before they had become inoculated with new ideas acquired in a foreign country. At Wailuku they informed the secretary of the consulate that he had no authority over them in America and no business to interfere in their disputes with their employer. In fact, that gentleman was for a time in danger of suffering personal violence from some of his irritated fellow-countrymen. It is commonly reported, and probably true, that the Japanese who have resided in Hawaii for a considerable period are less docile and tractable and more assertive of their rights than are newcomers. The changing character of the immigration, the growing number of persons not directly dependent upon the plantations for support, the effect of conditions of employment upon the Pacific Coast reacting upon Hawaiian Japanese, and the influence of the Japanese press in Honolulu, which is rapidly instructing the laborers as to the fullest limits of their rights, are all influences tending to make the Japanese workman of to-day a much more difficult person to deal with than his predecessor of ten years ago. On Maui an effort was made to call a sympathetic strike on all the larger plantations. It has even been proposed to quit work throughout the islands in order to enforce demands for an increase of pay, upon the ground that these rates were really fixed by the Planters' Association at Honolulu, a single organization interested in all the plantations. In fact, fear that some such move might be attempted is said to have caused the voluntary increase of \$2 a month made in laborers' wages in May, 1905, though this increase was in accordance with a tacit promise made when wages were reduced during the period when sugar was at a very low price, in 1902 and 1903. One finds some literature among the Japanese working people that indicates that socialistic doctrines receive some discussion among them, though these theories have hardly taken much hold of the mass of the laborers. Nevertheless, conditions are favorable for an increase of class sentiment among the Japanese. They are said to be naturally jealous of special prosperity on the part of their own countrymen of the same station, and this feeling may extend in time to include capitalists as a class. But this day has not yet come. Japanese strikes are so far race or national outbreaks, venting petty dissatisfaction, and not properly part of the great class struggle which we in America call the labor movement.

Fear has been expressed that serious disturbances involving large bodies of Asiatic workmen might follow sooner or later, when the life and property of white residents would be endangered; but there are no tangible indications of such a calamity impending. With thousands of acres of inflammable cane fields in their absolute power, the Orientals have never in any disturbance reported stooped to incendiarism to vent their spite or attain their ends.

There have been some disturbances involving Porto Rican and Korean laborers, but these have not had industrial import, and are to be classed as riots rather than as strikes. In the case of Koreans, these troubles have been in nearly all cases entirely among themselves.

The following table gives a list of the strikes reported since 1902. All of these were upon sugar plantations, and were conducted by Japanese laborers. Although no establishments are reported "closed" by strikes, because under the uniform interpretation adopted by the Bureau of Labor of that term work is not supposed to have ceased until all employees are off duty. As a matter of fact, the mills were entirely closed a number of times, and practically all cultivating operations ceased; but workers of other nationalities than Japanese found employment in irrigating cane, casual cultivation, and such occupations as could be carried on during the time when a greater part of the plantation force was idle. The table should be considered rather an enumeration than a statistical description of the strikes that have occurred in Hawaii since the previous report was presented.

STRIKES ON SUGAR PLANTATIONS 1903 TO 1905.

Locality.	Ordered by organization.	Beginning of strike.	Days duration.	Succeeded.	Employees before strike.	Employees thrown out of work by strike.	Cause or object.
Kahuku, Oahu.	No.	June 12, 1903	1	Yes.....	800	510	For release of employee arrested on charge of arson.
Aiea, Oahu.....	No.	Sept. 25, 1903	2	Partly ..	1,909	450	For increase of wages.
Okala, Hawaii.	No.	Mar. 4, 1904	2	Yes.....	620	459	For discharge of overseer.
Waipahu, Oahu	No.	May 2, 1904	4	Yes.....	2,400	1,390	For discharge of overseer.
Ewa, Oahu	No.	May 31, 1904	3	No.....	2,469	1,949	For discharge of overseers.
Waipahu, Oahu	No.	July 20, 1904	5	Partly ..	2,400	1,400	For discharge of Japanese team "luna" (overseer).
Waiāluā, Oahu.	No.	Dec. 8, 1904	4	No.....	2,534	1,196	For increase of piecework rate sufficient to guarantee \$16 per month.
Kahuku, Oahu.	No.	Apr. 4, 1905	3	No.....	871	166	For guarantee of \$18 per month for cane cutters.
Wailuku, Maui.	Yes.	Apr. 26, 1905	1	Yes.....	886	178	For discharge of overseer.
Waipahu, Oahu	(a)	May 13, 1905	4	No.....	2,600	316	For increase of wages of 2 cents per ton and pay for overtime.
Lahaina, Maui.	Yes.	May 15, 1905	7	Partly ..	2,228	1,589	For discharge of overseers.
Wailuku, Maui.	Yes.	May 15, 1905	8	Partly ..	898	562	For increase of wages, free fuel, medical attendance, and sanitary improvements in camps.

(a) Not reported.

JAPANESE IMMIGRATION.

The question of an adequate labor supply has faced the Hawaiian planters constantly for nearly fifty years. A brief account of the attempts that have been made during that period to obtain workers, to establish a resident population, to import at different periods European, Asiatic, or Pacific island field hands, and the methods adopted to control labor after its arrival and retain it upon the plantations was given in the report of 1902. As a result of these various policies about 66 per cent of the present plantation force is Japanese, and nearly 85 per cent Asiatics of various nationalities. The preponderance of Japanese justifies a more detailed account of the immigration to Hawaii from that country, even at the risk of repeating some matter from the previous report.

The first Japanese laborers were brought to Hawaii in 1868, apparently without much attention having been given to the subject by the Japanese Government. This importation was confined to a single shipload, and rumors of ill treatment of these laborers having reached the Government of Japan the authorities of that country promptly sent over a vessel with orders to repatriate all of the subjects of the Mikado who desired to return to their native land. A large number, though not all, took advantage of this opportunity, and thereafter for several years no effort was made to secure labor from the Island Empire.

During this period Chinese laborers acquired a preponderance upon the plantations somewhat similar to that now held by the Japanese, though this was not so embarrassing to employers as at present, because the laborers were at that time under penal contract. In 1874, of 3,786 laborers employed, 2,991 were Hawaiians and a large proportion of the remainder were Europeans and Americans in skilled positions. Eight years later the number of employees had risen to 10,243, of whom 5,037 were Chinese and 902 South Sea Islanders imported under contract. There were at this time but 15 Japanese upon the plantations. All the skilled positions were filled by white men or Hawaiians with the exception of 3 Chinese sugar boilers.

The large immigration of Chinese then taking place was opposed by the Hawaiians, who saw the danger impending that their decreasing race might be submerged by these new arrivals. It was also viewed unfavorably by many other residents of the islands, who either regarded the question from a Hawaiian standpoint or foresaw in a continuance of existing conditions a bar to closer commercial and political relations with the United States. The planters also were quite willing to consider any measure likely to prevent the predominance of laborers of one nationality upon the plantations, so long as they were assured of

an adequate supply of workmen. Therefore the Hawaiian Government, practically representing the planting interests, entered into negotiations with the Japanese authorities with a view to securing a renewal of immigration from that country. At first Japan refused to consider formal treaty relations regarding this question, but expressed a willingness to tolerate the shipment of laborers to Hawaii in a tentative way. This decision was announced in April, 1884. The following February the *City of Tokio* brought 676 men, 159 women, and 108 children from Japan. These were entered as "free immigrants," which probably means that they were not under formal contract to work for the planters. Later the agent in Japan representing the planters and the Hawaiian Government was able to ship contract laborers to the islands. The sugar people paid \$55 per man for these importations. For some reason the Japanese Government became dissatisfied with this arrangement, and decided to suspend further emigration to Hawaii; but after lengthy negotiations the authorities reconsidered this decision, and, in response to the earnest representations of the Hawaiian sugar interests, supported by their Government, entered into a formal convention permitting and regulating the emigration of laborers to the islands. This agreement was concluded in March, 1886. Of the 14,439 persons employed on the plantations that year, 5,626 were Chinese, 1,949 Japanese, and 2,255 Hawaiians, showing that the importation of Japanese had assumed some proportions before thus formally regulated by treaty.

The terms of the original agreement were slightly modified in 1887, and in 1891, in response to political agitation in Japan against the treaty and reports that the laborers in Hawaii were subject to abuse, Japan refused to renew this agreement. These difficulties were subsequently adjusted, however, and the conditions remained substantially unchanged until 1896, when they were modified somewhat by a general law, enacted by the Japanese Parliament, regulating all emigration of labor from the country. When Hawaii was annexed to the United States all such agreements expired, as the latter Government could not act as a labor bureau for private industry. The labor convention between the Government of Japan and the Hawaiian Kingdom provided that contract laborers should be recruited by representatives of the latter Government, under certain express stipulations, among which were the following:

1. Each contract was to be signed by the laborer as one party and the Hawaiian Government as the other, at Yokohama, for a period of three years, at a wage of \$9 a month and \$6 food allowance. The laborer was free to extend this contract for two years more at the time of its expiration.

2. For every 100 men, 30 women were to be imported, and the duties and wages of these were prescribed.

3. A specified number of Japanese interpreters and physicians were to be employed in behalf of the emigrants, originally at the expense of the Hawaiian Government, but later at the cost of the laborers themselves.

4. Arrests of Japanese must be made by the Hawaiian Government and cases tried in the presence of a Japanese interpreter. The Government of the Kingdom was made responsible for damages due for the cruel treatment of laborers.

5. A schedule of rates for canceling contracts, based upon the length of time they were to run, was established.

6. Twenty-five per cent of the laborer's wages were to be deposited with the Hawaiian Government, to be paid to the laborer upon the expiration of his contract, and to draw 5 per cent annual interest during the intervening period.

7. The Hawaiian Government was required to return to Japan immigrants who, on account of permanent disability, were unable to earn their own living, even against the will of the laborer, and also all women found plying immoral traffic. The Government could also return, against his will, any immigrant who proved vicious, vagrant, or otherwise evilly disposed.

At first the Hawaiian Government met the laborer's expense of passage, but later he was required to repay from his earnings \$60 of this amount.

The cost to the Hawaiian Government of this immigration was met by payments by the planters, who subcontracted the laborers from the authorities upon their arrival at Honolulu. The Government thus became an intermediary or bureau through which the plantations were supplied with labor. This gave the Japanese Government a responsible party with whom it could deal directly in all matters relating to the condition of its emigrant citizens in Hawaii, while the planters of the latter country were convenienceed by thus using the State as a recruiting organization.

The farm laborers of Japan grasped eagerly at the opportunity to improve their condition offered in Hawaii. In two provinces 1,400 presented themselves as applicants within two days, and 28,000 men applied for passage during 1886. Many of these were rejected as unsuitable for the work for which they were required. This possibility of selecting the best class of workers from a large available choice has been one of the advantages offered in Japan, which the planters have not had in many other places from which they sought labor.

The result of this convention was that Japanese soon constituted a majority of the plantation workers. For some years a Chinese-exclusion law was in operation in Hawaii, and indeed such exclusion seems to have been desired by the Japanese Government, for when the *authorities suspended emigration to Hawaii for a time, in 1891, a reason*

offered was the fear that race conflicts might occur between Japanese and Chinese laborers upon the plantations. Of course this probability was increased during the hostilities that later broke out between the two countries. Shortly after the establishment of the Provisional Government the importation of Chinese was resumed on a large scale. This labor was cheaper than the Japanese, as the Hongkong coolies received but \$12.50 a month, without food. Therefore the number of Chinese plantation employees rose from 2,617 to 8,114 between 1892 and 1897, while the number of Japanese fell from 13,009 to 12,068. From 1897 to 1904 the number of Chinese decreased steadily, though 832 more were reported upon the plantations in 1905 than for the previous year. During the same period the number of Japanese upon the plantation pay rolls has increased more than 150 per cent.

Prior to 1896 the Japanese Government interested itself directly in the emigration of labor. The policy of that Government with regard to those of its citizens who seek residence in other lands is commendable. Japan concerns herself to keep her undesirable and needy citizens under her own control, and assumes responsibility for all her people, no matter where residing, who are unable to provide for their own support. So far as it is possible to catch the national point of view of the Japanese from conversation with representatives of that people, they consider that their country is disgraced or humiliated by the disgrace or humiliation of Japanese residing in other countries, and their chief object in regulating emigration seems to be to insure the return of those who through their misdeeds or misfortunes might become unwelcome guests in foreign lands. The Government is doubtless influenced also by humanitarian motives toward its own subjects in its efforts to assure their relief when in distress abroad; much as our own Government is in case of shipwrecked American seamen desiring to return to a home port. With some such object as has been suggested in view, the Parliament of Japan passed, in 1896, an "Emigrants' protection law," for the purpose of providing that every laborer leaving the country should have some responsible surety at home who could be required to provide for his care if he were left in need while abroad, on account of sickness or accident, change of climate, or the vicissitudes of travel, and who could even be compelled to pay his passage back to his native land in extreme cases. Naturally this solicitude for the welfare of the emigrant is due partly to the assumption that the Japanese who leaves his country will, in practically all cases, retain his allegiance to the Mikado and does not emigrate with the intention of changing his citizenship or becoming a permanent resident abroad. The law requires, therefore, that every emigrant shall obtain two or more sureties, each of whom must be a person paying not less than 5 yen (about \$2.50) direct national tax, and not already a surety for any other emigrant, who shall guarantee him against distress during his

absence. Surety corporations, specially organized for this purpose, are accepted by the Government in default of personal sureties.

These corporations are known as emigrant companies, and have extended their functions far beyond the simple objects just described. According to information received in Honolulu, 34 of these companies have been chartered by the Japanese Government. In 1902 the emigrants to China and Korea were placed outside the restrictions of this act, upon the ground that laborers migrating to those countries were practically assured of employment, and that the local agencies already established by Japanese in those countries were able to cope with any cases of destitution or distress likely to arise among their countrymen. Hawaii, which, next to the countries just mentioned, receives the largest Japanese immigration, is the field of operation of 5 of the 34 companies. Some private agreement is said to exist among these societies by which they divide the business amicably and thus avoid competition.

Under existing conditions the intending emigrant to Hawaii, who is no longer recruited by the labor agents of that country, almost invariably has recourse to one of the emigration companies for the sureties required by the Government before a passport is issued to him. As the association of companies is a virtual monopoly, he is obliged to conform to the conditions which any company imposes. The latter is authorized by the Government to charge a fee of 50 yen (about \$25), which is practically an insurance premium guaranteeing him against destitution while abroad. But this authorized payment, which is presumably sufficient to cover the liabilities assumed by the company, has been made the basis of a number of unauthorized perquisites, constantly increasing as the activities of the companies have extended into new channels. The result, it is claimed, has been the growth of an evil, and something of a scandal, in the methods of controlling Japanese emigration to Hawaii. The history of the present situation was described to the writer as follows by a Japanese gentleman in a position to be informed upon the matter, and was corroborated in detail from other sources:

During the early period of Japanese emigration to Hawaii the Government looked after the migration of laborers and received from the planters—indirectly—a certain sum for each laborer, which was used to pay his fare to Hawaii and insure him against accident, sickness, or other trouble while he was away from home. Afterward all this work was handed over to the emigration companies, who collected the money from the planters and used it for the same purpose as before. At that time the emigrants were still mostly real farm laborers—ignorant men, but used to work—who labored in their own country from sunrise to sunset, seven days a week, for 2 yen (\$1) and board a month. On account of the first laborers who went to Hawaii coming back with the money they had saved, there are now a good many people in our emigration districts who are rich, according to *their ideas*, where before there were only poor people. Their goods

luck was an advertisement for Hawaii to all the people in Japan. But since about the time Hawaii was made a part of the United States the methods used by the companies have changed. They found that a great many people wanted to go to Hawaii, and that they could choose those who had some money or whose parents or friends had money, who were people very different from true agricultural laborers. Then they began to sell as a privilege the right to go to Hawaii; for they now have got the whole thing in their own hands, and no man can go to Hawaii without their permission if he is a laborer. And the American Government had a law that every person coming into the country must have \$50 "show money". So the emigration companies began to finance the laborers on a bigger scale. They take only men who can give good security and compel them to borrow money for all their expenses and the cost of steamship ticket to Hawaii, although they have already got money from the planters for this purpose. We have sworn affidavits of laborers that the companies have made them pay, besides the fee of 50 yen (\$25) allowed by the Government, 20 yen (\$10) agent's commission, 5 to 10 yen (\$2.50 to \$5) railway fare to port of embarkation, big hotel bills at hotels connected with the companies while the men were waiting at the port and taking the medical examination called for by the American Government (where the men often suffer delays that are not necessary), their steamship ticket and some extras on the steamer which a free immigrant would not have to pay, and the \$50 "show money" for passing the immigration inspector at Honolulu. So the whole charge against the emigrant by the company may be \$200 or \$250. The laborer must borrow this from a bank which the emigration companies have organized. Sometimes the bank has made the men borrow even when they had some money of their own. The bank charges 12½ per cent a year interest on these loans. They make the "laborer" give two responsible sureties in Japan for this loan. So real laborers, like those who went to Hawaii before, are shut out, because Japanese farm laborers can not get the cash or the security for the cash which the emigration companies make them pay. So the kind of emigration has changed. The laborers now emigrating to Hawaii are people who have some property and are not used to the hardest kind of work. They are ex-school-teachers, policemen, clerks, and similar classes of people. They are not used to hard work in the field, and so are not satisfied on the plantations, where they have to work very hard. They are leaving for California as soon as they get enough money. With a debt of \$200 on their backs, which they can not pay in two years at plantation wages, they get discouraged and want to find some quicker way to make money. Some try to get out of paying the debt, and so we hear of lawsuits in Japan to recover the money from the sureties there. The worst thing is that this debt to the Kei Hin Bank (The Emigrant Companies' Union Bank) is really an imaginary debt, because the companies have already collected from the planters in Hawaii money to pay all the expenses of the laborer. They put all this money in their pockets, and it is a clear profit to them besides what they make out of the laborer.

The emigrant's deposit money is supplied him in the form of a certificate on the Kei Hin Bank, usually running for three years and not collectible before the expiration of that period. These certificates pay

4 per cent interest, while the emigrant is said to pay 12½ per cent interest on the money he borrows from the same bank. ^(a)

^a The following translations of Kei Hin Bank certificates were furnished through the courtesy of the United States attorney at Honolulu:

No. 1307. CERTIFICATE OF FIXED DEPOSIT. Coin, 100 Yen.

(Interest, 4 per cent per annum.)

(Neither the transfer nor the use of this as collateral security is allowed.)

We hereby certify that we hold the above-mentioned deposit with us during your stay abroad. After your return to this country we will pay it back to you at the Tokyo main office of this bank, in exchange for this certificate, accompanied by a certificate of your return issued by the Emigrant Agents' Union and also an advice from the Hawaii branch of this bank.

Should you, however, stay abroad after three years passed from this date, the principal or any fraction thereof that is needed by you may be paid at said branch office of this bank.

But if you shall have been in debt to this bank during the said three years, the counting of the date shall commence on the day when you have discharged your obligation.

The above is, however, subject to the condition that the amount of any claim the bank may have against you at the time of payment shall be deducted from the balance to be delivered to you.

The legal standing and also the effectiveness of this stipulation are to be subject to the laws of the Empire of Japan.

OKUZO SHIODA [SEAL],

Manager of the Hawaii Branch.

[SEAL OF THE KEI HIN GINKO.] KEI HIN GINKO (Bank) (INCORPORATED),

No. 1, 3 Chome Sukiya Machi, Kyobashi Ku, Tokyo.

No. 3862. CERTIFICATE OF DEPOSIT. Coin, 90 yen.

(Neither the transfer nor the use of this as collateral security is allowed.)

We hereby certify that the above-mentioned amount has been deposited by you with us as an emergency fund in time of your illness or misfortune during your stay abroad. Should you, therefore, become sick or meet with other unforeseen misfortune, any necessary amount will be paid to you out of the fund upon due notice given by you, accompanied by the certificate of the Imperial Japanese consulate and the Emigrant Agents' Union.

It is understood, however, that the amount of any claim that this bank might hold against you would previously be deducted and only the balance paid to you.

In case no occasion arises for paying out from said emergency fund and you have returned to Japan after having completely discharged your obligations to this bank, the sum deposited or due you will be paid at the Tokyo main office of this bank in exchange for this certificate, accompanied by a notice from the Hawaii branch advising us that you have completely fulfilled your obligations to this bank.

MR. UMEKICHI YAMACHIKA.

July 19, 1902.

No. 2812. CERTIFICATE OF FIXED TERM DEPOSIT. Coin, 100 yen.

(Neither the transfer nor the use of this as collateral security is allowed.)

We hereby certify that we hold the above-mentioned sum deposited with us by you during the term of your stay abroad. After your return to Japan we will pay the sum ~~to~~

The debts of the laborer to the Kei Hin Bank must be paid in regular monthly installments from his wages after reaching Hawaii.

A word may be ventured with regard to the relations of the planters with the Japanese emigration companies. The legislation in Japan which preceded the organization of the companies had been in existence four years when annexation took place. During that interval the Hawaiian Planters' Association is said to have subsidized the companies as recruiting agencies, paying them a certain sum for each laborer arriving in Hawaii. At the time of annexation, fearing apparently that the provisions of the Federal immigration laws might be used against them, the planters are said to have withdrawn this bounty. The emigration companies, however, who are said to possess powerful political affiliations in their own country—or operating under the regular provisions of the Japanese laws—almost completely shut off emigration to Hawaii, so that only 367 Japanese entered the islands the following year. By this measure they are said to have forced the planters to subsidize them, though if the assertions of the opponents of the companies among the Japanese themselves are true this money is not really used to assist the laborers to reach Hawaii. Two agreements between the Planters' Association and the emigrant companies are said to have been made since 1900, each covering a period of two years, the terms of which are not a matter of public knowledge. It is rumored that when the last agreement expired, in 1905, the Planters' Association refused to enter into a further compact with the companies. The representatives of the companies were reported to be in Honolulu in the spring of 1905, but to have been unsuccessful in what was termed

back to you, at the Tokyo main office of this bank, in exchange for this certificate, accompanied by a certificate of your return issued by the Emigrant Agents' Union and also an advice from the Hawaii branch of this bank. In the following cases, however, a special payment of the principal or any fraction thereof may be made at this branch:

1. In case that your illness or misfortune during your stay abroad causes the Imperial Japanese consulate and also the Emigrant Agents' Union to recognize the fact that you need help and protection and they certify to that effect.
2. In case that you are still staying abroad after the expiration of three years, counting from this date. If you shall have been in debt to this bank, however, the counting of the period of three years will commence on the day when you shall have discharged your obligation to this bank.

The above is subject to the condition, however, that the amount of any claim that the bank may hold against you at the time of payment shall be deducted from the face of this certificate and the balance only paid to you.

The legal standing and the legal effectiveness of this stipulation shall be subject to the laws of the Empire of Japan.

OKUZO SHIODA,
Manager Hawaii Branch,
Kei Hin Ginko (Bank), Ltd.

June 1, 1903.

To MR. KYUTARO KAWAMOTO.

"holding up the planters" for a further subsidy. If this change of policy on the part of the planters has taken place, reason for such action is to be found in the agitation against the companies and their methods which has recently started among the Japanese in Hawaii, and seconded to some extent by the press of Japan; and in the further fact that since the increased migration of Japanese laborers to California and other parts of the Pacific Coast the planters have no hold upon the people whom the companies send to Hawaii. Naturally they have no interest in promoting emigration from Japan to California by way of Hawaii that justifies their spending money for such a purpose.

The laborers coming to Honolulu from Japan are not treated like free immigrants upon their arrival, but are carried directly from the steamers to the various plantations to which they have been assigned. This custom, which appears to be a survival from the contract-labor days, has called forth protest from Japanese residents of Honolulu. In a sense, of course, it is a voluntary matter with the immigrants whether they go to the plantations or not, as no legal compulsion can be used to make them do so; but with ignorant laborers methods which are not strictly illegal may be, in effect, coercion.

The opposition to the emigration companies and their methods which has developed among the Hawaiian Japanese has led to the organization of a society known as the "Japanese Reform Association," which is conducting an active agitation with the object of influencing the Japanese Government so to amend the present laws as to allow free emigration to Hawaii. In this effort they have the support of a part of the press of their own country. Of course, the whole question of the organization and their manner of doing business in their own country is a purely domestic one with the Japanese people, and any reforms must come from the Japanese themselves. But the present effects of the operations of the companies and the probable results of a change from regulated to free emigration are a matter of some concern to Americans. Undoubtedly the companies are interested in promoting emigration to Hawaii, and as long as they are in existence there is no reason why they should not form some connection with large employing interests upon the mainland, similar to that said to have been in force between them and the Hawaiian Planters' Association, and thereby become a factor in increasing the movement of labor from Japan to California and other parts of the West. They make their money out of emigration, and it must follow that they will continue to use their influence to increase emigration to any place where laborers are assured of a wage that will enable them to repay their debts to the companies. On the other hand, the companies, by their charges and commissions, have increased the cost of migration for the laborer, and it is possible that if they were out of the way free

emigration might exceed the present regulated emigration. A considerable part of the present migration from Hawaii to California is voluntary and unassisted, except that the laborers go for the most part to practically assured positions. Japanese residents of Hawaii, who are advocating the abolition of the emigration companies, do not anticipate that such an action will seriously interfere with the movement of Japanese toward America.

So long as the planters subsidize the emigration companies they look upon the money thus paid as part of the labor cost of production. Considering the shifting character of the plantation population since penal contracts were abolished, and especially since the immigrants ceased to be preponderatingly from the agricultural classes, the cost of importing labor is no small item of expense. If this money were added to wages instead of being paid out in the manner in which it was formerly, the increase might be sufficient not only to induce more active immigration from Japan, but also to check somewhat the present migration from Hawaii to California.

If the present methods of the companies do, as is claimed, add to the necessary cost of reaching Hawaii, and therefore limit emigration to classes in Japan who are socially above farm laborers, this fact may help to explain the increasing difficulty of plantation administration. The early Japanese immigrants were almost exclusively from the peasant class. All applicants were rejected who had not performed full military service, all who belonged to the old military order, and fishermen. A letter from the planters' representative in Japan in 1891, says: "The immigrants come exclusively from the agricultural districts of the interior of Japan, and all are trained farming hands." This letter is interesting, as advocating even at that day the abolition of contracts with the laborers, on the ground that free labor would be cheaper. If the immigrants are no longer recruited from the same classes as in 1891, but come from sections of the country and of the community where social discontent is beginning to manifest itself, then the increased labor organization and agitation upon the plantations are easily explained, as is also the rapid growth of a population of Japanese in the islands who not only are independent of the plantations, but have never engaged previously to any extent in plantation service. This population engages directly in mercantile and professional pursuits, enters the field of skilled mechanics, or engages in rural industries other than cane planting.

GENERAL TABLES.

Three very comprehensive statistical tables are presented in this report in addition to the many short tables given in the preceding text of the report.

The titles of these tables are as follows:

Table I.—Occupations, wages, hours of labor, and nationality of employees in each industry, 1905.

Table II.—Occupations, average wages and hours of labor, and nationality of employees in each industry, 1900–1901, 1902, and 1905.

Table III.—Retail prices of commodities, 1890–1905.

Table I.—Occupations, wages, hours of labor, and nationality of employees in each industry, 1905 (pp. 516 to 591).—Data for this table were secured from 103 establishments, representing 24 industries and 51,616 employees, as shown in the following text table:

NUMBER OF ESTABLISHMENTS AND EMPLOYEES FOR WHICH WAGES AND HOURS OF LABOR ARE GIVEN, BY INDUSTRIES.

Industries.	Number of establishments.	Number of employees.
Bakery, confectionery, and restaurant	2	17
Brewery	1	40
Building	15	679
Carriage making	2	33
Coffee plantation	1	87
Electric light and ice	2	83
Fertilizer	1	62
Foundry and machine shop	3	316
Harness making	1	4
Laundry	1	62
Milk, cream, and butter	1	11
Planing mill	4	45
Pot flour making	1	4
Printing, job	2	63
Printing, newspaper	1	43
Rice cleaning	1	8
Rice plantation	3	318
Soda water and soft drinks	1	11
Steam railroad	4	741
Steamship companies, interisland	2	595
Stock ranches	2	118
Street railway	1	149
Sugar plantations	60	48,229
Tannery	1	18
Total	103	51,616

No attempt was made to cover all establishments in the Territory, but in certain industries nearly all establishments of any importance are included in the table.

For the other industries, the figures presented are only representative. It is believed, however, that sufficient data were secured to fairly and correctly represent industrial conditions in the Territory as to wages, hours of labor, and the different nationalities employed in the several industries. In this table the number of establishments from which data were secured is stated in connection with the name of the industry. All occupations found in the establishments investigated are given for each industry, and the number and sex of the employees of each nationality are given under each occupation. Following each nationality appear the days of work per week, and the lowest, highest, and average hours of work per week. On the opposite page the employees of each nationality in each occupation are classified according to their daily wages, the table showing the number of employees earning under 50 cents per day, the number earning over 50 cents or under \$1 per day, etc. This classification affords an opportunity to see the range of wages for each nationality of each occupation and the predominant wage groups. The classification is followed by the average wages per day for each nationality in each occupation. At the close of the occupation, a total and average are given for the occupation in which data for the employees of all nationalities are combined. A few general occupations are found under several industries; for example, carpenters are found employed in the building industry, which represents firms engaged in general building, and by steam railroads, by sugar plantations, etc.

The occupation representing a far greater number of employees than any other is that of field hands, which covers 20,925 persons. Ten nationalities are represented in this occupation, but 66 per cent of all the employees of the occupation are Japanese. A total of 2,447 employees in this occupation receive under 50 cents per day, 58 receive \$1 or under \$1.50 per day, while 18,420, or 88 per cent of the total number employed in the occupation, receive 50 cents or under \$1 per day. The average wages of all employees of this occupation are 63 cents per day.

With this short explanation it is believed the table will be readily understood. A careful and extensive study of this table is recommended for a broad knowledge concerning the nationality and the wages and hours of labor of the employees in the several industries of the Territory.

*Table II.—Occupations, average wages and hours of labor, and nationality of employees in each industry, 1900-1901, 1902, and 1905 (pp. 592 to 662).—*This table has been prepared so that a comparison may be made between the wages and hours of labor in 1905 and the preceding years, 1900-1901 and 1902. The data for 1900-1901 and 1902 were secured in former investigations by the Bureau. The occupations, nationalities, average hours per week, and the average wages per day

for 1905, given in Table II, are the same as shown in Table I. A note given in connection with the name of each industry in this table shows the number of establishments from which data were secured for each of the three periods. It will be seen that in some of the industries no data were secured for one or both of the preceding periods, and it will be further observed that although data may be presented for all three periods in an industry certain occupations may appear in but one or two of the periods owing to the change in the occupations employed in the different periods, and to some extent, possibly, to a change in the names of the occupations. Comparisons should not be made between the number of employees in the several periods, as the number of establishments for which information was secured varies, and even when the number is the same they are not always the same identical establishments. The number of employees is given, however, to show the basis on which rests the average hours and wages shown. In the building industry, for example, it is seen that the data for 1900-1901 are from 8 establishments; for 1902 from 9 establishments; for 1905 from 15 establishments. With so many establishments included it may be presumed that the wages and hours of labor shown for each occupation are fairly representative. For example, the wages of carpenters in the building industry in 1900-1901 were \$3.59½ per day; in 1902, \$3.72 per day, and in 1905, \$2.82½ per day. An inspection of the nationalities shows that the employees of this occupation were largely American in the first two periods, while in 1905 it is seen that there were a greater number of Japanese than of any other race. The reduction of the general average of wages in this occupation is largely due to the increasing number of Japanese employed.

An inspection of the occupations of this table will show that considerable change has been taking place within the last few years in the nationalities employed.

Table III.—Retail prices of commodities, 1890-1905 (pp. 663 to 671).— This table shows the retail prices of the principal articles of food and a few other staple commodities from 1905 back to 1890, or as near thereto as a record of prices could be secured for the same articles from the same establishments. Owing to difference in price for the same article at different stores it was not deemed proper to secure prices for part of the period from one firm and for the remainder of the period from another firm, and some commodities change so materially in their character in a few years that prices for identical articles can not be followed back for many years.

At the head of each column of quotations shown in this table the locality for which prices are quoted is stated in the box head with the name of the article. When the name of the town would tend to identify the firm only the name of the island is given. When two or more quotations were secured for the same article an effort was made

to get prices as nearly as possible for the same grade and quality in each instance. An effort was also made to have the figures fairly represent the prevailing prices throughout the Territory—some of the quotations being from plantation stores, some from Oriental stores, and others from the largest establishments in Honolulu. The prices shown in this table are the average prices for the year. Footnotes have been appended to show the seasonal variation in prices of a few articles that fluctuate materially during the year. The absolute relative worth of these figures as data from which to estimate the cost of living is affected by trade customs referred to in another part of this report. A study of the tables in detail shows that there was a marked rise in the price of nearly all commodities during the boom that followed annexation.

Quotations of retail prices were secured for the two preceding reports on Hawaii that have been made by this Bureau, and a number of the same firms have been continued in this report.

In the second report of this Bureau, published in Bulletin No. 47, a series of index numbers was presented showing the trend of prices of food from 1890 to 1902. The index numbers consist of percentages showing the per cent that the average price for each year was of the average price for the ten-year period, 1890-1899. The index numbers shown in the following text table from 1890 to 1900 are the same as given in Bulletin No. 47; those for 1901 and 1902 have been revised. The series of index numbers has been continued to include 1905, the numbers from 1901 to 1905 being based on detail figures of Table III, presented in this report.

RELATIVE RETAIL PRICES OF FOOD, 1890 TO 1905.

Year.	Price.	Year.	Price.	Year.	Price.
1890.....	100.8	1896.....	99.2	1901.....	108.5
1891.....	101.6	1897.....	98.9	1902.....	108.7
1892.....	101.3	1898.....	98.3	1903.....	108.5
1893.....	100.3	1899.....	101.4	1904.....	106.6
1894.....	99.4	1900.....	105.3	1905.....	105.5
1895.....	98.8				

The above table shows that the price of food as a whole reached the lowest point in the sixteen-year period in 1898, when it was 98.3 per cent of the average price for the ten years from 1890 to 1899, and the highest price in 1902, when it was 108.7 per cent of the average price for the ten-year period named. A computation made from these figures shows that the price of food increased 10.6 per cent from 1898 to 1902. Since 1902 there has been a decline in the price of food, the price in 1905 being 2.9 per cent lower than in 1902.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND

[For explanation and discussion of this table see pages 512 and 513.]

BAKERY, CONFECTIONERY, AND RESTAURANT (2 ESTABLISHMENTS).

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Bakers.....	1	M.	Chinese.....	7	56	56	56
2		1	M.	Japanese.....	7	56	56	56
3	Total.....	2	M.		7	56	56	56
4	Bakers' helpers.....	1	M.	Chinese.....	7	56	56	56
5		1	M.	Japanese.....	7	56	56	56
6	Total.....	2	M.		7	56	56	56
7	Confectioners.....	2	M.	Japanese.....	6	57	57	57
8	Cooks.....	2	M.	Chinese.....	7	56	56	56
9	Drivers.....	1	M.	Chinese.....	6	57	57	57
10		1	M.	Japanese.....	7	70	70	70
11	Total.....	2	M.		b 6½	57	70	63.5
12	Manager.....	1	M.	American.....	7	56	56	56
13	Packer.....	1	M.	Japanese.....	6	57	57	57
14	Saleswomen.....	2	F.	Hawaiian.....	b 6½	57	77	67
15	Stenographer.....	1	F.	American.....	6	57	57	57
16	Waiters.....	2	M.	Japanese.....	7	70	70	70

BREWERY (1 ESTABLISHMENT).

17	Bottlers.....	5	M.	American.....	6	53	53	53
18		1	M.	American negro.....	6	53	53	53
19		6	M.	Hawaiian.....	6	53	53	53
20		1	M.	Japanese.....	6	53	53	53
21		3	M.	Portuguese.....	6	53	53	53
22	Total.....	16	M.		6	53	53	53
23	Brewers, assistant.....	2	M.	American.....	6	53	53	53
24	Brewer, head.....	1	M.	American.....	6	53	53	53
25	Brewers' helpers.....	1	M.	American.....	6	53	53	53
26		1	M.	German.....	6	53	53	53
27		1	M.	Norwegian.....	6	53	53	53
28	Total.....	3	M.		6	53	53	53
29	Clerk.....	1	M.	American.....	6	53	53	53
30	Collector.....	1	M.	American.....	6	53	53	53
31	Engineer.....	1	M.	American.....	7	84	84	84
32	Engineer, assistant.....	1	M.	American.....	7	84	84	84
33	Firemen.....	2	M.	Norwegian.....	7	84	84	84
34	Foreman, bottlers.....	1	M.	German.....	6	53	53	53
35	Ice puller.....	1	M.	Portuguese.....	7	84	84	84
36	Laborers.....	1	M.	German.....	6	53	53	53
37		1	M.	Hawaiian.....	6	53	53	53
38		1	M.	Part-Hawaiian.....	6	53	53	53
39		1	M.	Japanese.....	6	53	53	53
40		1	M.	Portuguese.....	6	53	53	53
41	Total.....	5	M.		6	53	53	53
42	Oiler.....	1	M.	American.....	6	53	53	53
43	Stableman.....	1	M.	Portuguese.....	6	53	53	53
44	Teamsters.....	1	M.	American.....	6	53	53	53
45		1	M.	Part-Hawaiian.....	6	53	53	53
46		1	M.	Norwegian.....	6	53	53	53
47	Total.....	3	M.		6	53	53	53

a Also board, valued at \$3 per week.

b Average.

c 1 employee receives also board, valued at \$3 per week.

d Also board, valued at \$5 per week.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905.

[For explanation and discussion of this table see pages 512 and 513.]

BAKERY, CONFECTIONERY, AND RESTAURANT (2 ESTABLISHMENTS).

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
		a 1									a \$1.07	1
		a 1									a 1.43	2
		a 2									a 1.25	3
	a 1										a .50	4
	a 1										a .57	5
	a 2										a .53	6
	a 1	1	1								1.25	7
	a 1	a 1									a .85	8
	a 1	1									1.00	9
	a 1										a .85	10
	a 1	1									c .92	11
			d 1								d 1.97	12
	1	d 1	1								1.50	13
	a 1	1									e .95	14
	a 1										1.00	15
											a .92	16

BREWERY (1 ESTABLISHMENT).

		3	2								\$1.30	17
			1								1.50	18
		5	1								1.21	19
	f 2	1									1.25	20
											g .88	21
	f 2	10	4								g 1.19	22
				1				1			3.54	23
									1		9.58	24
				1							2.00	25
				1							2.00	26
					1						2.58	27
				2	1						2.19	28
					1						2.87	29
									1		4.79	30
											4.93	31
						1					3.29	32
											2.50	33
									1		4.79	34
			1								1.75	35
			1								1.50	36
				1							1.00	37
				1							1.50	38
				1							1.50	39
				1							1.75	40
		1	4								1.45	41
				1							2.00	42
				1							2.18	43
					1						2.59	44
						1					2.07	45
							1				2.87	46
				1	2						2.51	47

* 1 employee receives also board, valued at \$5 per week.

f Boys.

g Including 2 boys.

TABLE L.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
BUILDING (15 ESTABLISHMENTS).

Marginal number.	Occupation.	Employees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low-est.	High-est.	Average.
1	Blacksmiths.....	2	M.	American	6	53	53	53
2	Bookkeeper.....	1	M.	American	6	60	60	60
3	Bricklayers.....	5	M.	American	6	47	47	47
4		1	M.	English.....	6	47	47	47
5		1	M.	Portuguese.....	6	47	47	47
6		1	M.	Scotch.....	6	48	48	48
7	Total	8	M.		6	47	48	47.1
8	Bricklayers' helpers.....	12	M.	Portuguese.....	6	47	47	47
9	Carpenters	26	M.	American	6	47	54	48
10		2	M.	English.....	6	47	48	47.5
11		7	M.	German.....	6	48	48	48
12		22	M.	Hawaiian	6	47	54	48
13		15	M.	Part-Hawaiian ..	6	48	48	48
14		2	M.	Irish.....	6	48	48	48
15		47	M.	Japanese.....	6	49.5	49.5	49.5
16		3	M.	Norwegian.....	6	48	48	48
17		18	M.	Portuguese.....	6	47	48	47.9
18		1	M.	Samoan.....	6	48	48	48
19		2	M.	Scotch.....	6	48	48	48
20		2	M.	Swedish.....	6	48	48	48
21	Total	147	M.		6	47	54	48.3
22	Carpenters' helpers	1	M.	Filipino	6	47	47	47
23		2	M.	Hawaiian	6	48	48	48
24		1	M.	Part-Hawaiian ..	6	48	48	48
25		4	M.	Portuguese.....	6	48	48	48
26	Total	8	M.		6	47	48	47.9
27	Clerks.....	1	M.	Hawaiian	6	54	54	54
28		1	M.	Japanese.....	6	48	48	48
29	Total	2	M.		6	48	54	51
30	Concrete finisher.....	1	M.	English	6	48	48	48
31	Concrete workers	1	M.	American	6	48	48	48
32		1	M.	Portuguese.....	6	48	48	48
33	Total	2	M.		6	48	48	48
34	Concrete workers' helpers.....	2	M.	Polish	6	48	48	48
35	Engineers.....	4	M.	American	6	53	53	53
36		1	M.	Hawaiian	6	53	53	53
37		9	M.	Japanese.....	6	49.5	60	54.8
38	Total	14	M.		6	49.5	60	56.8
39	Engineers, pile drivers.....	1	M.	American	6	48	48	48
40		1	M.	Part-Hawaiian ..	6	48	48	48
41	Total	2	M.		6	48	48	48
42	Foreman, bricklayers.....	1	M.	American	6	47	47	47
43	Foremen, carpenters.....	2	M.	American	6	47	48	47.5
44		1	M.	English.....	6	47	47	47
45		4	M.	Japanese.....	6	49.5	49.5	49.5
46		1	M.	Scotch.....	6	48	48	48
47	Total	8	M.		6	47	49.5	48.5

a Hours reported for 23 employees only.

b Wages reported for 23 employees only.

c Hours reported for 123 employees only.

d Wages reported for 123 employees only.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

BUILDING (15 ESTABLISHMENTS).

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
				1					1		\$3.50	1
						1					3.33	2
										5	6.00	3
										1	6.00	4
										1	5.00	5
										1	6.00	6
										8	5.87	7
			12								1.50	8
				2	1	5	2	15		1	3.59	9
				1				1			3.00	10
				2	1		1	3			3.14	11
				6	10	8	1	2			2.61	12
				5	2	2	5	1			2.83	13
								2			4.00	14
			21	2							5.54	15
						1		2			3.66	16
					7	6	4	1			2.98	17
							1				3.50	18
				1				2			4.00	19
								1			3.00	20
			21	19	21	17	14	30		1	2.82	21
					1						2.50	22
			2								1.50	23
			1		1						2.50	24
					3						2.25	25
			3		5						2.12	26
		1									1.00	27
		1									1.25	28
		2									1.12	29
										1	6.00	30
						1					3.06	31
										1	5.00	32
						1					4.03	33
			1	1							2.00	34
						1		1		e 2	4.72	35
			8			f 1	1				3.50	36
										f 1	6.64	37
			8			f 2	1	1		e 2	2.67	38
								1			4.00	39
								1			4.00	40
								2			4.00	41
										1	7.50	42
										2	5.75	43
										1	6.00	44
				2	2						2.43	45
										1	5.00	46
				2	2					4	4.03	47

*1 employee receives also board and lodging.

f1 employee furnished also with house.

e See notes to details.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND BUILDING (15 ESTABLISHMENTS)—Continued.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Foreman, concrete workers.....	1	M.	American.....	6	48	48	48
2	Foremen, laborers, road.....	5	M.	Hawaiian.....	6	54	54	54
3	Foremen, painters.....	1	M.	American.....	6	48	48	48
4		1	M.	Japanese.....	6	49.5	49.5	49.5
5	Total.....	2	M.		6	48	49.5	48.8
6	Foreman, pavers.....	1	M.	American.....	6	48	48	48
7	Foreman, pile drivers.....	1	M.	American.....	6	48	48	48
8	Foreman, plumbers.....	1	M.	American.....	6	48	48	48
9	Foreman, stablemen.....	1	M.	American.....	7	70	70	70
10	Foreman, teamsters.....	1	M.	American.....	6	48	48	48
11	Laborers.....	3	M.	Chinese.....	6	48	48	48
12		12	M.	Hawaiian.....	6	47	48	47.9
13		24	M.	Japanese.....	6	48	49.5	48.2
14		1	M.	Porto Rican.....	6	48	48	48
15		45	M.	Portuguese.....	6	47	48	47.9
16	Total.....	85	M.		6	47	49.5	48
17	Laborers, road.....	89	M.	Hawaiian.....	6	48	54	52.4
18		13	M.	Porto Rican.....	6	54	54	54
19		21	M.	Portuguese.....	6	48	54	48.9
20	Total.....	123	M.		6	48	54	52
21	Laborers, rock crusher.....	5	M.	Portuguese.....	6	48	48	48
22	Masons.....	4	M.	Portuguese.....	6	48	54	51
23	Masons' helpers.....	4	M.	Portuguese.....	6	48	48	48
24	Mortar mixers.....	2	M.	American.....	6	47	47	47
25	Painters.....	2	M.	American.....	6	48	48	48
26		1	M.	English.....	6	48	48	48
27		23	M.	Hawaiian.....	6	48	48	48
28		8	M.	Japanese.....	6	49.5	49.5	49.5
29		7	M.	Portuguese.....	6	48	48	48
30	Total.....	41	M.		6	48	49.5	48.3
31	Painters' helpers.....	2	M.	Hawaiian.....	6	48	48	48
32		1	M.	Part-Hawaiian.....	6	48	48	48
33		1	M.	Portuguese.....	6	48	48	48
34	Total.....	4	M.		6	48	48	48
35	Paper hangers.....	1	M.	American.....	6	48	48	48
36		4	M.	Hawaiian.....	6	48	48	48
37		1	M.	Part-Hawaiian.....	6	48	48	48
38	Total.....	6	M.		6	48	48	48
39	Pavers.....	9	M.	American.....	6	48	48	48
40		4	M.	Hawaiian.....	6	48	48	48
41		4	M.	Part-Hawaiian.....	6	48	48	48
42		1	M.	Irish.....	6	48	48	48
43	Total.....	18	M.		6	48	48	48
44	Pile drivers.....	3	M.	American.....	6	48	48	48
45		1	M.	Hawaiian.....	6	48	48	48
46		2	M.	Portuguese.....	6	48	48	48
47		1	M.	Russian.....	6	48	48	48
48	Total.....	7	M.		6	48	48	48
49	Plasterers.....	2	M.	English.....	6	48	48	48
50	Plumbers.....	3	M.	American.....	6	47	48	47.7
51		1	M.	Portuguese.....	6	47	47	47
52	Total.....	4	M.		6	47	48	47.5

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

BUILDING (15 ESTABLISHMENTS)—Continued.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
										1	\$5.00	1
			5								1.50	2
					1			1			4.00	3
											2.50	4
					1			1			3.25	5
									1		5.00	6
									1		4.50	7
										1	6.00	8
						1					3.00	9
						1					3.00	10
		2		1							1.83½	11
	2	22	12								1.58½	12
											.98½	13
			1								1.50	14
			34	11							1.73	15
	2	24	47	12							1.48	16
		89									1.11½	17
		13									1.12½	18
		17	4								1.26	19
		119	4								1.14	20
				5							2.00	21
			1			1		2			3.12½	22
			4								1.50	23
						2					3.00	24
						1					3.25	25
							1				3.50	26
				4	9	10					2.63	27
			8								1.50	28
					5	1		1			2.78½	29
			8	4	14	12	2	1			2.49	30
			2								1.50	31
			1								1.50	32
			1								1.50	33
			4								1.50	34
							1				3.50	35
						3	1				3.12½	36
							1				3.50	37
						3	3				3.25	38
				9							2.00	39
				4							2.00	40
				4							2.00	41
				1							2.00	42
					18						2.00	43
				2		1					2.33½	44
						1					3.00	45
						2					3.00	46
					1						2.50	47
				2	1	4					2.64½	48
										2	6.00	49
									2	1	4.83½	50
										1	5.50	51
									2	2	5.00	52

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
BUILDING (15 ESTABLISHMENTS)—Concluded.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Plumbers' apprentice	1	M.	Portuguese	6	47	47	47
2	Plumbers' helpers.....	1	M.	American	6	48	48	48
3		3	M.	Hawaiian	6	47	48	47.7
4		1	M.	Part-Hawaiian	6	47	47	47
5		1	M.	Portuguese	6	48	48	48
6	Total	6	M.		6	47	48	47.7
7	Sheet-metal workers	3	M.	Portuguese	6	48	48	48
8	Sheet-metal workers' apprentices.....	2	M.	Portuguese	6	48	48	48
9	Shop boys	1	M.	Part-Hawaiian	6	48	48	48
10		1	M.	Japanese	6	48	48	48
11	Total	2	M.		6	48	48	48
12	Teamsters	9	M.	American	6	48	48	48
13		1	M.	American negro	6	48	48	48
14		1	M.	Danish	6	48	48	48
15		1	M.	German	6	48	48	48
16		3	M.	Hawaiian	6	48	48	48
17		1	M.	Japanese	6	48	48	48
18		7	M.	Portuguese	6	48	48	48
19	Total	23	M.		6	48	48	48
20	Tinsmiths	1	M.	English	6	48	48	48
21		1	M.	German	6	48	48	48
22		4	M.	Portuguese	6	47	48	47.8
23	Total	6	M.		6	47	48	47.8
24	Tinsmiths' helpers	2	M.	Hawaiian	6	48	48	48
25		2	M.	Portuguese	6	47	48	47.5
26	Total	4	M.		6	47	48	47.8
27	Watchmen	2	M.	American	7	84	84	84
28	Water boys	2	M.	Portuguese	6	48	54	51

CARRIAGE MAKING (2 ESTABLISHMENTS).

29	Blacksmiths	1	M.	Hawaiian	6	53	53	53
30		2	M.	Portuguese	6	53	53	53
31		1	M.	Swedish	6	53	53	53
32	Total	4	M.		6	53	53	53
33	Blacksmiths' helpers	6	M.	Portuguese	6	53	53	53
34		1	M.	Swedish	6	53	53	53
35	Total	7	M.		6	53	53	53
36	Bookkeeper	1	M.	Irish	6	53	53	53
37	Driver	1	M.	Hawaiian	6	53	53	53
38	Horseshoer	1	M.	Portuguese	6	53	53	53
39	Horseshoer's helpers	1	M.	American	6	53	53	53
40		1	M.	Portuguese	6	53	53	53
41	Total	2	M.		6	53	53	53
42	Painters	1	M.	Chinese	6	53	53	53
43		1	M.	Hawaiian	6	53	53	53
44		2	M.	Irish	6	53	53	53
45	Total	4	M.		6	53	53	53

^a Boy.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

BUILDING (15 ESTABLISHMENTS)—Concluded.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
	1										\$0.57½	1
			1								1.50	2
		1	1		1						1.83½	3
					1						2.50	4
		1									1.25	5
			2	2	2						1.79	6
				2		1	1	1			3.16½	7
											1.50	8
	1										.50	9
			1								1.50	10
	1		1								1.00	11
					2	4	1	2			2.66½	12
					1						2.00	13
					1						2.00	14
					1						2.00	15
					3						2.00	16
		1									1.25	17
					7						2.07	18
		1		15	4	1	2				2.25	19
								1			4.00	20
								3			3.50	21
				1							3.18½	22
				1				4	1		3.37½	23
		2									1.25	24
		1	1								1.37½	25
		3	1								1.31½	26
		1			1						1.57½	27
1		1									.72½	28

CARRIAGE MAKING (2 ESTABLISHMENTS).

					1						\$2.50	29
				1				1			3.00	30
									1		5.00	31
				1	1			1		1	3.37½	32
	1	2	1	2							1.44½	33
a1											a.50	34
b2	2	1	2								b1.31	35
										1	5.00	36
a1											a.50	37
								1			4.00	38
						1					3.00	39
		1									1.33½	40
		1					1				2.16½	41
				1							2.00	42
					1						2.50	43
								1		1	4.50	44
				1	1			1		1	3.37½	45

bIncluding 1 boy.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
CARRIAGE MAKING (2 ESTABLISHMENTS)—Concluded.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Painters' helpers	2	M.	Hawaiian	6	53	53	53
2	Trimmers	1	M.	American	6	53	53	53
3		1	M.	German	6	53	53	53
4	Total	2	M.		6	53	53	53
5	Trimmers' helpers	1	M.	American	6	53	53	53
6		2	M.	Hawaiian	6	53	53	53
7		1	M.	Part-Hawaiian	6	53	53	53
8	Total	4	M.		6	53	53	53
9	Woodworkers	1	M.	English	6	53	53	53
10		2	M.	German	6	53	53	53
11		1	M.	Hawaiian	6	53	53	53
12	Total	4	M.		6	53	53	53
13	Woodworkers' helper	1	M.	Portuguese	6	53	53	53

COFFEE PLANTATION (1 ESTABLISHMENT).

14	Cultivators	10	M.	Japanese	6	(d)	(d)	(d)
15	Dryer	1	M.	Hawaiian	6	59	59	59
16	Engineer	1	M.	Japanese	6	59	59	59
17	Hullers	2	M.	Japanese	6	59	59	59
18	Mechanic	1	M.	Japanese	6	59	59	59
19	Pickers	40	M.	Japanese	6	(d)	(d)	(d)
20		20	F.	Japanese	6	(d)	(d)	(d)
21	Total	60			6	(d)	(d)	(d)
22	Planters, contract	6	M.	Japanese	6	(d)	(d)	(d)
23	Pulpers	3	M.	Japanese	6	59	59	59
24	Stableman	1	M.	Hawaiian	7	70	70	70
25	Wood choppers	2	M.	Japanese	6	(d)	(d)	(d)

ELECTRIC LIGHT AND ICE (2 ESTABLISHMENTS).

26	Bookkeepers	1	M.	American	6	44	44	44
27		1	M.	Hawaiian	6	48	48	48
28	Total	2	M.		6	44	48	46
29	Cashier	1	M.	American	6	48	48	48
30	Clerks	1	M.	German	6	44	44	44
31		2	M.	Portuguese	6	44	48	46
32	Total	3	M.		6	44	48	45.3
33	Cold-storage man	1	M.	Hawaiian	7	84	84	84
34	Collectors	3	M.	Chinese	6	44	44	44
35		1	M.	Portuguese	6	48	48	48
36	Total	4	M.		6	44	48	46
37	Drivers	7	M.	Hawaiian	7	72	72	72
38	Engineers	3	M.	American	7	63	72	66
39	Engineer, chief	1	M.	American	7	63	63	63

a Boys.

c See notes to details.

e \$0.90 per acre per month. 1 man cultivates from 15 to 20 acres.

b Including 1 boy.

d Irregular.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

CARRIAGE MAKING (2 ESTABLISHMENTS)—Concluded.

Classified wages per day.										Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.	
	a1	1								b\$0.87½	1
							1			3.75	2
									1	5.00	3
*							1			4.37½	4
			1							1.66½	5
	a1	1								b.95½	6
	a1									a.50	7
	a2	1	1							c1.02	8
							1			3.50	9
								2		4.00	10
				1						2.00	11
				1			1	2		3.37½	12
			1							1.50	13

COFFEE PLANTATION (1 ESTABLISHMENT).

		1								(e)	14
			1							\$1.00	15
	2									1.50	16
		1								.69	17
										1.25	18
										(f)	19
										(f)	20
										(f)	21
	3									(g)	22
		1								.69	23
										1.00	24
										(h)	25

ELECTRIC LIGHT AND ICE (2 ESTABLISHMENTS).

							1		1	\$4.79	26
										3.83½	27
							1		1	4.31½	28
									1	8.62½	29
			1							1.72½	30
				1		1				2.82½	31
			1	1		1				2.46	32
		1								1.15	33
			1	2						2.17	34
					1					2.87½	35
			1	2	1					2.34½	36
			7							1.97½	37
							1	2		3.94½	38
									1	5.92	39

f Receive \$0.45 per cwt. of coffee in the berry. Earnings, \$0.45 to \$1.12½ per day.

g Receive \$0.88 per cwt. and house rent.

h \$2.00 per cord.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
ELECTRIC LIGHT AND ICE (2 ESTABLISHMENTS)—Concluded.

Marginal number.	Occupation.	Employees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Lowest.	Highest.	Average.
1	Firemen	3	M.	American	7	56	56	56
2	Foreman, cold storage	1	M.	Hawaiian	7	84	84	84
3	Foreman, ice factory	1	M.	Portuguese	7	56	56	56
4	Foreman, linemen	1	M.	American	6	44	44	44
5	Foreman, wiremen	1	M.	American	6	44	44	44
6	Ice pullers	2	M.	Japanese	7	72	72	72
7	Inspector	1	M.	American	6	44	44	44
8	Janitor	1	M.	Portuguese	6	44	44	44
9	Laborers	4	M.	Japanese	7	63	63	63
10	Linemen	5	M.	Hawaiian	6	44	44	44
11	Machinist	1	M.	American	7	63	63	63
12	Machinists' helper	1	M.	Portuguese	7	63	63	63
13	Meterman	1	M.	American	6	44	44	44
14	Meterman's helpers	2	M.	American	6	44	44	44
15	Office boy	1	M.	Portuguese	6	44	44	44
16	Oilers	6	M.	Japanese	7	72	84	80
17	Stablemen	4	M.	Japanese	7	56	72	64
18	.....	1	M.	Portuguese	7	56	56	56
19	Total	5	M.	.....	7	56	72	62.4
20	Stenographer	1	F.	American	6	44	44	44
21	Storekeeper	1	M.	Portuguese	6	44	44	44
22	Storekeeper's helper	1	M.	Portuguese	6	44	44	44
23	Superintendent electric-light plant	1	M.	American	6	48	48	48
24	Superintendent ice factory	1	M.	American	6	48	48	48
25	Switchman	1	M.	German	7	63	63	63
26	Tankmen	1	M.	American	7	84	84	84
27	.....	1	M.	Hawaiian	7	84	84	84
28	Total	2	M.	.....	7	84	84	84
29	Teamsters, ice wagon	3	M.	American	7	56	56	56
30	.....	2	M.	Canadian	7	56	56	56
31	.....	2	M.	German	7	56	56	56
32	.....	1	M.	Swedish	7	56	56	56
33	Total	8	M.	.....	7	56	56	56
34	Trimmer, arc	1	M.	Portuguese	6	44	44	44
35	Wiremen	3	M.	American	6	44	44	44
36	.....	1	M.	German	6	44	44	44
37	.....	1	M.	Hawaiian	6	44	44	44
38	.....	1	M.	Portuguese	6	44	44	44
39	Total	6	M.	.....	6	44	44	44
40	Wiremen's helper	1	M.	Hawaiian	6	44	44	44

FERTILIZERS (1 ESTABLISHMENT).

41	Bag sewers	6	F.	Japanese	6	56	56	56
42	Bookkeeper	1	M.	German	6	56	56	56
43	Chemist	1	M.	German	6	56	56	56
44	Chemist's helper	1	M.	Portuguese	6	56	56	56
45	Clerks	1	M.	American	6	56	56	56
46	.....	1	M.	German	6	56	56	56
47	Total	2	M.	.....	6	56	56	56
48	Engineers	1	M.	American	6	72	72	72
49	.....	1	M.	Part-Hawaiian	6	72	72	72
50	Total	2	M.	.....	6	72	72	72

a Boy.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

ELECTRIC LIGHT AND ICE (2 ESTABLISHMENTS)—Concluded.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
				3							\$2.46	1
					1						2.63	2
							1				3.83	3
							1				3.83	4
							1				3.83	5
		2					1				1.15	6
			1								1.91	7
		1									1.94	8
		4									1.00	9
				1	4			1			2.55	10
						1					4.11	11
									1		2.50	12
										1	4.60	13
	1	1	1								1.62	14
		6									.83	15
	1	3			1						1.20	16
											1.11	17
											2.85	18
	1	3		1							1.35	19
					1		1				3.83	20
	1										2.50	21
						1					3.83	22
				1						1	6.71	23
										1	7.67	24
										1	2.80	25
			1								1.97	26
			1								1.97	27
			2								1.97	28
			3								1.97	29
			2								1.97	30
			1	1							2.22	31
			1								1.97	32
			7	1							2.03	33
				1							2.49	34
							3				3.19	35
							1	1			3.50	36
				1							3.00	37
											2.00	38
				1			4	1			3.01	39
			1								1.50	40

FERTILIZERS (1 ESTABLISHMENT).

	6										\$0.75	41
										1	5.75	42
		1								1	9.58	43
											1.25	44
										1	5.75	45
									1		4.79	46
									1	1	5.27	47
										1	6.39	48
								1			4.16	49
								1		1	5.27	50

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
FERTILIZERS (1 ESTABLISHMENT)—Continued.

Mar- ginal num- ber.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Firemen.....	1	M.	German.....	6	72	72	72
2		1	M.	Portuguese.....	6	72	72	72
3	Total.....	2	M.		6	72	72	72
4	Foremen, laborers.....	6	M.	Japanese.....	6	56	56	56
5	Laborers.....	1	M.	Chinese.....	6	56	56	56
6		35	M.	Japanese.....	6	56	56	56
7		1	M.	Portuguese.....	6	56	56	56
8	Total.....	37	M.		6	56	56	56
9	Lead burner.....	1	M.	Japanese.....	6	56	56	56
10	Superintendent acid department.....	1	M.	German.....	6	56	56	56
11	Superintendent factory.....	1	M.	German.....	6	56	56	56
12	Watchman.....	1	M.	German.....	7	84	84	84

FOUNDRY AND MACHINE SHOP (3 ESTABLISHMENTS).

13	Blacksmiths.....	2	M.	American.....	6	50	54	52
14		1	M.	German.....	6	54	54	54
15		1	M.	New Zealander.....	6	54	54	54
16		1	M.	Portuguese.....	6	54	54	54
17	Total.....	5	M.		6	50	54	52.2
18	Blacksmiths' apprentice.....	1	M.	German.....	6	54	54	54
19	Blacksmiths' helpers.....	5	M.	Hawaiian.....	6	50	54	51.6
20		1	M.	Part-Hawaiian.....	6	54	54	54
21		6	M.	Portuguese.....	6	54	54	54
22	Total.....	12	M.		6	50	54	53
23	Boiler makers.....	7	M.	American.....	6	50	54	52.3
24		2	M.	Hawaiian.....	6	50	54	52
25		5	M.	Irish.....	6	54	54	54
26		2	M.	Portuguese.....	6	54	54	54
27	Total.....	16	M.		6	50	54	53
28	Boiler makers' apprentices.....	6	M.	American.....	6	54	54	54
29		13	M.	Hawaiian.....	6	54	54	54
30		1	M.	Part-Hawaiian.....	6	54	54	54
31		1	M.	Portuguese.....	6	50	50	50
32	Total.....	21	M.		6	50	54	53.8
33	Boiler makers' helpers.....	20	M.	Hawaiian.....	6	50	54	52.4
34		1	M.	Portuguese.....	6	50	50	50
35	Total.....	21	M.		6	50	54	52.3
36	Carpenter.....	1	M.	Portuguese.....	6	50	50	50
37	Draftsman.....	4	M.	American.....	6	54	54	54
38	Foreman, blacksmiths.....	1	M.	New Zealander.....	6	54	54	54
39	Foremen, boiler makers.....	1	M.	American.....	6	50	50	50
40		1	M.	Scotch.....	6	54	54	54
41	Total.....	2	M.		6	50	54	52
42	Foreman, machinists.....	1	M.	American.....	6	54	54	54
43	Foremen, molders.....	1	M.	American.....	6	50	50	50
44		1	M.	Swedish.....	6	54	54	54
45	Total.....	2	M.		6	50	54	52

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

FERTILIZERS (1 ESTABLISHMENT)—Concluded.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
			1								\$1.75	1
			1								1.50	2
			2								1.62½	3
			5	1							1.61	4
		1									1.25	5
		35									1.25	6
		1									1.25	7
		37									1.25	8
				1							2.49	9
										1	7.67	10
										1	11.50	11
				1							1.97½	12

FOUNDRY AND MACHINE SHOP (3 ESTABLISHMENTS).

							1	1			\$4.37½	13
							1				4.00	14
								1			4.50	15
							1				3.75	16
							1	2	2		4.20	17
		1									1.33½	18
			3	2							1.73½	19
			1	5							2.17	20
											1.91½	21
			4	8							1.86	22
				1		1		2	3		3.85½	23
				1				1			3.37½	24
								4	1		4.15	25
					1	1					2.75	26
				2	1	2		6	5		3.75	27
	1	3	2								1.14	28
	1	1	11								1.41½	29
			1								1.50	30
	1										.50	31
	3	4	14								1.29½	32
			14	6							1.74	33
		1									1.16½	34
		1	14	6							1.71½	35
				1	1			1	1		2.50	36
										1	3.25	37
											7.00	38
										1	6.00	39
										1	7.00	40
										2	6.50	41
										1	7.00	42
										1	6.00	43
										1	7.00	44
										2	6.50	45

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
FOUNDRY AND MACHINE SHOP (3 ESTABLISHMENTS)—Continued.

Mar- ginal num- ber.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Foremen, pattern makers.....	1	M.	English	6	50	50	50
2		1	M.	Portuguese.....	6	54	54	54
3	Total	2	M.	.....	6	50	54	52
4	Foreman, warehouse.....	1	M.	Part-Hawaiian ..	6	54	54	54
5	Laborers	2	M.	Hawaiian	6	54	54	54
6		4	M.	Portuguese.....	6	54	54	54
7	Total	6	M.	.....	6	54	54	54
8	Machinists	31	M.	American	6	50	54	53.4
9		1	M.	Danish	6	54	54	54
10		5	M.	English	6	50	54	60.8
11		1	M.	French	6	54	54	54
12		1	M.	German	6	54	54	54
13		3	M.	Hawaiian	6	54	54	54
14		3	M.	Part-Hawaiian ..	6	50	54	52.7
15		1	M.	Irish	6	54	54	54
16		1	M.	Porto Rican	6	54	54	54
17		4	M.	Portuguese.....	6	50	54	53
18		4	M.	Scotch.....	6	54	54	54
19		1	M.	Swedish.....	6	50	60	50
20	Total	56	M.	.....	6	50	54	53.1
21	Machinists' apprentices.....	22	M.	American	6	54	54	54
22		20	M.	Hawaiian	6	54	54	54
23	Total	42	M.	.....	6	54	54	54
24	Machinists' helpers	6	M.	American	6	50	54	52.7
25		6	M.	Hawaiian	6	50	54	53.3
26		5	M.	Portuguese.....	6	50	54	52.4
27	Total	17	M.	.....	6	50	54	52.8
28	Messenger.....	1	M.	American	6	54	54	54
29	Molders	3	M.	American	6	54	54	54
30		1	M.	English	6	50	50	50
31		8	M.	Hawaiian	6	54	54	54
32		2	M.	Part-Hawaiian ..	6	50	54	52
33		2	M.	Irish	6	54	54	54
34		4	M.	Scotch.....	6	54	54	54
35	Total	20	M.	.....	6	50	54	53.6
36	Molders' apprentices.....	24	M.	American	6	54	54	54
37		14	M.	Hawaiian	6	54	54	54
38		1	M.	Norwegian	6	50	50	50
39		1	M.	Portuguese.....	6	50	50	50
40	Total	40	M.	.....	6	50	54	53.3
41	Molders' helpers.....	1	M.	American	6	54	54	54
42		4	M.	Hawaiian	6	50	54	51
43		6	M.	Portuguese.....	6	50	54	52
44	Total	11	M.	.....	6	50	54	51.8
45	Office boy	1	M.	American	6	54	54	54
46	Pattern makers.....	3	M.	American	6	50	54	52.7
47		3	M.	Hawaiian	6	54	54	54
48		1	M.	Part-Hawaiian ..	6	50	50	50
49		2	M.	Portuguese.....	6	54	54	54
50		1	M.	Scotch.....	6	54	54	54
51	Total	10	M.	.....	6	50	54	53.2

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

FOUNDRY AND MACHINE SHOP (3 ESTABLISHMENTS)—Continued.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
										1	\$6.00	1
										1	6.00	2
										2	6.00	3
							1				3.50	4
				2							2.00	5
				4							2.00	6
				6							2.00	7
					3	2	2	14	9	1	3.96	8
							1	1		1	4.00	9
											3.95	10
									1		4.50	11
					2	1		1			4.00	12
					1	1	1		1		2.66	13
											3.66	14
					1			1			4.00	15
					2	1		1			2.50	16
					1			4			3.04	17
											4.00	18
					1						2.50	19
					9	6	4	24	11	2	3.77	20
	6	9	7								1.21	21
		17	3								1.37	22
	6	26	10								1.29	23
			1	5							1.96	24
			2	6							2.04	25
				3							1.88	26
			5	14							1.96	27
		1									1.00	28
					1	1		1			3.38	29
					3	3	2				4.40	30
								2			3.16	31
								2			4.26	32
								2			4.40	33
								3	1		4.53	34
					4	4	2	9	1		3.76	35
	2	3	19								1.42	36
	1		13								1.51	37
	1										.50	38
	1										.66	39
	5	3	32								1.41	40
				1							2.08	41
			2	2							1.75	42
				4							1.87	43
			4	7							1.85	44
	1										.50	45
						1			2		4.00	46
					1	1	1				3.08	47
									1		4.50	48
							1	1			3.75	49
									1		4.50	50
					1	2	2	1	4		3.77	51

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
FOUNDRY AND MACHINE SHOP (3 ESTABLISHMENTS)—Concluded.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Pattern makers' apprentices	7	M.	American	6	54	54	54
2		1	M.	Hawaiian	6	54	54	54
3	Total	8	M.		6	54	54	54
4	Warehousemen	10	M.	Hawaiian	6	54	54	54
5		2	M.	Part-Hawaiian	6	54	54	54
6		1	M.	Portuguese	6	54	54	54
7	Total	13	M.		6	54	54	54
8	Wiper and oiler	1	M.	American negro	6	50	50	50

HARNESS MAKING (1 ESTABLISHMENT).

9	Harness makers	1	M.	American	6	54	54	54
10		1	M.	Canadian	6	54	54	54
11		1	M.	Hawaiian	6	54	54	54
12	Total	3	M.		6	54	54	54
13	Harness makers' helper	1	M.	Hawaiian	6	54	54	54

LAUNDRY (1 ESTABLISHMENT).

14	Bookkeepers	1	M.	American	6	48	48	48
15		1	F.	American	6	48	48	48
16	Total	2			6	48	48	48
17	Drivers	3	M.	American	6	60	60	60
18		1	M.	English	6	60	60	60
19		1	M.	Portuguese	6	60	60	60
20	Total	5	M.		6	60	60	60
21	Engineer	1	M.	American	6	60	60	60
22	Firemen	1	M.	Chinese	6	60	60	60
23		1	M.	Japanese	6	60	60	60
24	Total	2	M.		6	60	60	60
25	Forewoman	1	F.	American	6	60	60	60
26	Forewoman, mifuglers	1	F.	Portuguese	6	60	60	60
27	Ironers	1	F.	American	6	60	60	60
28		5	F.	Hawaiian	6	60	60	60
29		5	F.	Portuguese	6	60	60	60
30	Total	11	F.		6	60	60	60
31	Janitors	1	M.	American negro	6	(e)	(e)	(e)
32		1	F.	American negro	6	(e)	(e)	(e)
33	Total	2			6	(e)	(e)	(e)
34	Machine hands	1	M.	German	6	60	60	60
35		1	M.	Hawaiian	6	60	60	60
36		3	F.	Hawaiian	6	60	60	60
37		1	F.	Porto Rican	6	60	60	60
38		2	F.	Portuguese	6	60	60	60
39	Total	8			6	60	60	60

e Girl.

b Including 1 girl.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

FOUNDRY AND MACHINE SHOP (3 ESTABLISHMENTS)—Concluded.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
	2	4	1								\$1.09½	1
		1				*					1.00	2
	2	5	1								1.08½	3
		5	1	3	1						1.68½	4
			1	1							1.99½	5
			1								1.66½	6
		5	3	4	1						1.73	7
			1								1.66½	8

HARNESS MAKING (1 ESTABLISHMENT).

					1						\$3.00	9
					1						2.50	10
					1						2.50	11
					2	1					2.66½	12
			1								1.83½	13

LAUNDRY (1 ESTABLISHMENT).

					1						\$2.50	14
			1								1.66½	15
			1		1						2.08½	16
			1		2						2.22	17
			1		1						2.50	18
	1										.83½	19
	1		1		3						2.00	20
						1					3.33½	21
				1							2.00	22
						1					3.00	23
				1		1					2.50	24
						1					3.33½	25
			1								1.66½	26
		1									1.33½	27
	1	4									1.10	28
a1	2	2									6.85	29
a1	3	7									b1.01	30
	1										.58½	31
	1										.58½	32
	2										.58½	33
		1									1.00	34
		1									1.00	35
			1	2							2.00	36
	1										.83½	37
	2										.83½	38
	3	2	1	2							1.31½	39

* Irregular.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
LAUNDRY (1 ESTABLISHMENT)—Concluded.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Manglers	2	F.	Porto Rican	6	60	60	60
2		11	F.	Portuguese	6	60	60	60
3	Total	13	F.		6	60	60	60
4	Markers and sorters	1	M.	American	6	60	60	60
5		1	M.	Hawaiian	6	60	60	60
6		1	M.	Portuguese	6	60	60	60
7	Total	3	M.		6	60	60	60
8	Stableman	1	M.	Japanese	6	60	60	60
9	Starchers	2	M.	Portuguese	6	60	60	60

MILK, CREAM, AND BUTTER (1 ESTABLISHMENT).

10	Can washers	3	M.	Japanese	7	70	70	70
11	Drivers	6	M.	Portuguese	7	84	84	84
12	Stablemen	2	M.	Japanese	7	70	70	70

PLANING MILLS (4 ESTABLISHMENTS).

13	Band sawyer	1	M.	American	6	48	48	48
14	Band sawyer's helper	1	M.	American	6	48	48	48
15	Carpenters	6	M.	American	6	48	48	48
16		1	M.	English	6	48	48	48
17		1	M.	Polish	6	48	48	48
18		1	M.	Portuguese	6	48	48	48
19		1	M.	Swedish	6	48	48	48
20	Total	10	M.		6	48	48	48
21	Driver	1	M.	Portuguese	6	48	48	48
22	Engineers	2	M.	Hawaiian	6	48	48	48
23		1	M.	Portuguese	6	48	48	48
24	Total	3	M.		6	48	48	48
25	Foremen	1	M.	American	6	48	48	48
26		2	M.	German	6	48	53	50.5
27	Total	3	M.		6	48	53	49.7
28	Laborers	2	M.	Hawaiian	6	48	48	48
29		10	M.	Portuguese	6	48	53	49
30	Total	12	M.		6	48	53	48.8
31	Machine hands	1	M.	American	6	48	48	48
32		2	M.	Portuguese	6	53	53	53
33	Total	3	M.		6	48	53	51.3
34	Mill hands	4	M.	American	6	48	48	48
35		1	M.	Hawaiian	6	48	48	48
36	Total	6	M.		6	48	48	48
37	Office boy	1	M.	American	6	48	48	48
38	Polisher	1	M.	Hawaiian	6	53	53	53
39	Sticker hand	1	M.	American	6	48	48	48
40	Sticker hand's helper	1	M.	Hawaiian	6	48	48	48
41	Teamster	1	M.	Portuguese	6	48	48	48
42	Watchman	1	M.	Japanese	7	84	84	84

a Girls.

b Boys.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

LAUNDRY (1 ESTABLISHMENT)—Concluded.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
	a 2										a \$0.50	1
	a 11										a. 684	2
	a 13										a. 654	3
					1						2.50	4
			1								1.834	5
											1.00	6
			1	1		1					1.78	7
	1										.834	8
	2										.834	9

MILK, CREAM, AND BUTTER (1 ESTABLISHMENT).

		3									\$1.15	10
					6						2.30	11
	1	1									1.014	12

PLANING MILLS (4 ESTABLISHMENTS).

					1				1		\$4.50	13
											2.50	14
								5	1		4.084	15
								1			4.00	16
									1		3.50	17
								1			4.00	18
											3.50	19
							2	7	1		3.95	20
			1								1.58	21
			2								1.584	22
				1							2.00	23
			2	1							1.72	24
									1		5.50	25
									1		5.25	26
								1		2	5.334	27
			2								1.50	28
		2	8								1.45	29
		2	10								1.46	30
				1	1		1				3.50	31
											1.834	32
				1	1		1				2.39	33
		b 4									b 1.00	34
				1							2.00	35
		b 4			1						c 1.20	36
	1										.66	37
		b 1									b 1.00	38
										1	5.00	39
			1								1.50	40
			1								1.50	41
			1								1.75	42

c Including 4 boys.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
POI FLOUR MAKING (1 ESTABLISHMENT).

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Grinder	1	M.	Japanese	6	57	57	57
2	Grinder's helpers	1	M.	Japanese	7	(b)	(b)	(b)
3		1	F.	Japanese	7	(b)	(b)	(b)
4	Total	2			7	(b)	(b)	(b)
5	Slicer and driver	1	M.	American	6	57	57	57

PRINTING, JOB (2 ESTABLISHMENTS).

6	Bookbinders	1	M.	American	6	48	48	48
7		1	M.	Hawaiian	6	50.5	50.5	50.5
8		1	M.	Portuguese	6	48	48	48
9	Total	3	M.		6	48	50.5	48.8
10	Bookbinders' apprentices	1	M.	Hawaiian	6	50.5	50.5	50.5
11		1	M.	Portuguese	6	50.5	50.5	50.5
12	Total	2	M.		6	50.5	50.5	50.5
13	Bookbinders' helpers	7	F.	Hawaiian	6	48	48	48
14		1	F.	Part-Hawaiian	6	48	48	48
15		3	F.	Portuguese	6	48	48	48
16		3	M.	Portuguese	6	48	48	48
17	Total	14			6	48	48	48
18	Bookkeeper	1	M.	American	6	50.5	50.5	50.5
19	Clerk	1	M.	American	6	48	48	48
20	Compositors	2	M.	American	6	48	48	48
21		7	M.	Hawaiian	6	48	50.5	48.7
22		1	M.	Portuguese	6	50.5	50.5	50.5
23	Total	10	M.		6	48	50.5	48.8
24	Compositors' apprentices	3	M.	Hawaiian	6	48	48	48
25	Foreman	1	M.	American	6	50.5	50.5	50.5
26	Foreman, bookbinders	1	M.	American	6	48	48	48
27	Foreman, compositors	1	M.	American	6	48	48	48
28	Linotype operators	2	M.	American	6	48	48	48
29		2	M.	Hawaiian	6	48	48	48
30	Total	4	M.		6	48	48	48
31	Linotype operators' apprentice	1	M.	Portuguese	6	48	48	48
32	Manager	1	M.	American	6	50.5	50.5	50.5
33	Press feeders	1	M.	American	6	50.5	50.5	50.5
34		2	M.	Hawaiian	6	50.5	50.5	50.5
35	Total	3	M.		6	50.5	50.5	50.5
36	Pressmen	1	M.	American	6	48	48	48
37		1	M.	Part-Hawaiian	6	48	48	48
38		3	M.	Portuguese	6	48	48	48
39	Total	5	M.		6	48	48	48
40	Pressmen's helper	1	M.	Portuguese	6	48	48	48
41	Printer's apprentice	1	M.	Hawaiian	6	50.5	50.5	50.5

a Also board and lodging, valued at \$3 per week.

b Irregular.

c Boy; receives also board and lodging, valued at \$3 per week.

d Girls.

e Including 6 girls.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

POI FLOUR MAKING (1 ESTABLISHMENT).

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
		a1									a \$1.00	1
	a1										a, 71½	2
	a1										a, 43	3
	a1	a1									a, 57½	4
		c1									c, 65	5

PRINTING, JOB (2 ESTABLISHMENTS).

						1					\$3.33½	6
				1							2.00	7
						1					3.00	8
				1		2					2.78	9
	1										.50	10
		1									1.00	11
	1	1									.75	12
	d6	1									e, 68	13
		1									1.16½	14
	d3										d, 58½	15
	f1	f2									f 1.00	16
	g10	h4									g, 76½	17
						1					3.33½	18
				1							2.00	19
						2					3.21	20
				3	3	1					2.43	21
				1							2.08½	22
				4	3	3					2.55	23
	1	2									1.14	24
								1			4.00	25
										1	5.00	26
										1	5.83½	27
										2	5.38½	28
					1	1					3.00	29
					1	1				2	4.19	30
		1									1.00	31
										1	6.66½	32
		f1									f 1.00	33
		f1	1								f 1.33½	34
		f2	1								h 1.22	35
		1						1			3.50	36
			1	1	1						1.25	37
											2.19½	38
		1	1	1	1			1			2.26½	39
	f1										f, 50	40
	1										.50	41

f Boys.

g See notes to details.

h Including 2 boys.

i Including 1 boy.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
PRINTING, NEWSPAPER (1 ESTABLISHMENT).

Mar- ginal num- ber.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Bookkeeper	1	M.	German	6	48	48	48
2	Carriers	5	M.	American	7	21	21	21
3		4	M.	Hawaiian	7	21	21	21
4		2	M.	Part-Hawaiian ..	7	21	21	21
5	Total	11	M.		7	21	21	21
6	Cashier	1	F.	American	6	48	48	48
7	Clerk	1	M.	American	6	48	48	48
8	Collector	1	M.	American	6	48	48	48
9	Collector, assistant ..	1	M.	American	6	48	48	48
10	Compositors	1	M.	American	6	48	48	48
11		2	M.	Hawaiian	6	48	48	48
12		1	M.	Portuguese	6	48	48	48
13	Total	4	M.		6	48	48	48
14	Compositors' helpers ..	2	M.	American	6	48	48	48
15	Editors	1	M.	American	6	48	48	48
16		1	M.	Hawaiian	6	48	48	48
17	Total	2	M.		6	48	48	48
18	Foreman, compositors ..	1	M.	American	6	48	48	48
19	Foreman, pressmen ..	1	M.	American	6	48	48	48
20	Librarian	1	M.	American	6	48	48	48
21	Linotype operators	2	M.	American	6	48	48	48
22		1	M.	Hawaiian	6	48	48	48
23	Total	3	M.		6	48	48	48
24	Manager, advertising ..	1	M.	American	6	48	48	48
25	Manager, business	1	M.	American	6	48	48	48
26	Manager, business, assistant ..	1	M.	American	6	48	48	48
27	Office boy	1	M.	American	6	48	48	48
28	Photo-engraver	1	M.	Part-Hawaiian ..	6	48	48	48
29	Photo-engraver's helper ..	1	M.	Portuguese	6	48	48	48
30	Pressman	1	M.	Hawaiian	7	(a)	(a)	(a)
31	Proof reader	1	M.	Hawaiian	7	(a)	(a)	(a)
32	Proof reader's assistant ..	1	M.	Hawaiian	6	48	48	48
33	Reporters	3	M.	American	6	48	48	48
34		1	M.	Hawaiian	6	48	48	48
35	Total	4	M.		6	48	48	48

RICE CLEANING (1 ESTABLISHMENT).

36	Engineer	1	M.	Chinese	6	54	54	54
37	Foreman	1	M.	Chinese	6	54	54	54
38	Laborers	6	M.	Chinese	6	54	54	54

RICE PLANTATIONS (3 ESTABLISHMENTS).

39	Cooks	10	M.	Chinese	7	70	84	79.8
40	Field hands	268	M.	Chinese	c 7	70	84	79.1
41	Foremen	6	M.	Chinese	7	84	84	84
42	Irrigators	2	M.	Chinese	7	(a)	(a)	(a)
43	Managers	2	M.	Chinese	7	(a)	(a)	(a)
44	Manager, assistant	1	M.	Chinese	7	(a)	(a)	(a)
45	Partners	25	M.	Chinese	7	(a)	(a)	(a)
46	Stablemen	4	M.	Chinese	7	84	84	84

a Irregular.

b Also board, valued at from \$6 to \$7 per month.

c Employees have occasional holidays without loss of pay.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY—Continued.

PRINTING, NEWSPAPER (1 ESTABLISHMENT).

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
									1		\$4.98½	1
	5										.60½	2
	4										.60½	3
	2										.64½	4
	11										.61	5
			1								1.66½	6
				1							2.33½	7
						1					3.33½	8
		1									1.16½	9
						1					3.33½	10
					1	1					3.12½	11
				1							2.25	12
					1	1	2				2.96	13
				2							2.00	14
							1			1	10.00	15
											3.33½	16
						1				1	6.66½	17
										1	6.66½	18
							1		1		4.50	19
											3.33½	20
									2		5.00	21
								1			4.00	22
								1		2	4.66½	23
									1		4.79	24
										1	11.50	25
	1									1	5.75	26
											.50	27
						1					3.33½	28
		1									1.08½	29
								1			4.09	30
								1			3.75	31
	1										.83½	32
										3	5.28	33
				1							1.66½	34
			1							3	4.37½	35

RICE CLEANING (1 ESTABLISHMENT).

			1								\$1.73	36
		1									1.34½	37
	6										.96	38

RICE PLANTATIONS (3 ESTABLISHMENTS).

	b 10										b \$0.62	39
	b 268										b .58	40
	d 6										d .82	41
	e 2										e .66	42
	e 2										e .82	43
	e 1										e .66	44
(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)	45
	d 4										d .59	46

d Also board, valued at \$6 per month.

e Also board, valued at \$7 per month.

f Not reported. Also board, valued at \$7 per month.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SODA WATER AND SOFT DRINKS (1 ESTABLISHMENT).

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Bookkeeper	1	M.	Part-Hawaiian ..	6	53	53	53
2	Bottlers	3	M.	Hawaiian	6	53	53	53
3		2	M.	Japanese	6	53	53	53
4	Total	5	M.		6	53	53	53
5	Drivers	1	M.	American	6	53	53	53
6		1	M.	English	6	53	53	53
7		1	M.	Part-Hawaiian ..	6	53	53	53
8	Total	3	M.		6	53	53	53
9	Manager	1	M.	American	6	53	53	53
10	Sirup mixer	1	M.	Hawaiian	6	53	53	53

STEAM RAILROADS (4 ESTABLISHMENTS).

11	Accountant	1	M.	American	6	60	60	60
12	Agent, freight	1	M.	American	6	53	53	53
13	Agents, station	7	M.	American	^b 5, 6	^c 60	^c 60	^c 60
14		2	M.	Portuguese	7	(^f)	(^f)	(^f)
15	Total	9	M.		^b 6, 7	^c 60	^c 60	^c 60
16	Agents, ticket	6	M.	American	7	(^f)	(^f)	(^f)
17		3	M.	Hawaiian	7	(^f)	(^f)	(^f)
18	Total	9	M.		7	(^f)	(^f)	(^f)
19	Blacksmiths	1	M.	American	6	53	53	53
20		1	M.	Hawaiian	6	59	59	59
21		1	M.	Portuguese	6	60	60	60
22	Total	3	M.		6	53	60	57.3
23	Blacksmiths' helper	1	M.	Part-Hawaiian ..	6	53	53	53
24	Boatmen	8	M.	Hawaiian	6	59	59	59
25	Bookkeeper	1	M.	Portuguese	6	59	59	59
26	Brakemen	1	M.	American	7	(^f)	(^f)	(^f)
27		16	M.	Hawaiian	^b 6, 8	^c 60	^c 60	^c 60, 7
28		4	M.	Portuguese	^b 6, 5	^c 60	^c 60	^c 60
29	Total	21	M.		^b 6, 8	^f 59	^c 60	^f 59, 8
30	Bridgeman	1	M.	Japanese	7	84	84	84
31	Captain, tug	1	M.	American	6	60	60	60
32	Car cleaners	6	M.	Japanese	7	63	70	64.2
33	Car inspector	1	M.	American	7	70	70	70
34	Carpenters	3	M.	American	6	53	54	53.7
35		1	M.	Austrian	6	60	60	60
36		7	M.	Japanese	6	53	60	55.6
37		3	M.	Portuguese	6	54	54	54
38	Total	14	M.		6	53	60	55.1

^a Also house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

^b Average.

^c Hours reported for 3 employees only.

^d 2 employees furnished also with house.

^e See notes to details.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

SODA WATER AND SOFT DRINKS (1 ESTABLISHMENT).

Classified wages per day.										Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.	
			1							\$1.72½	1
		3								1.11	2
		2								1.25	3
		5								1.16½	4
					1					2.68½	5
					1					2.68½	6
					1					2.68½	7
					3					2.68½	8
			1							5.75	9
										1.50	10

STEAM RAILROADS (4 ESTABLISHMENTS).

								1		α 1	α \$6.13½	11
										4.10		12
		α 2	α 2			α 3				α 2.16		13
		1	1							1.72½		14
		α 3	α 3			α 3				α 2.06½		15
			4	2						1.92		16
			3							1.64½		17
			7	2						1.82½		18
			1						1*	5.00		19
						α 1				1.53½		20
										α 3.45		21
			1			α 1				1	α 3.33	22
				1						2.00		23
			8							1.50		24
							1			3.64		25
			1	1						1.50		26
		1	α 15							α 1.50½		27
		α 4								α 1.36½		28
		α 5	α 16							α 1.48		29
		1								1.00		30
		1	4	1					α 1	α 5.75		31
						1				1.16		32
										2.55		33
						1		1		3.55		34
							α 1			α 3.50		35
		1	4	α 2						α 1.73½		36
						1			2	4.13½		37
		1	4	α 2		2	α 2	1	2	α 2.76½		38

f Irregular.

α 1 employee furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

α 2 employees furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

* Hours reported for 2 employees only.

f Hours reported for 5 employees only.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
STEAM RAILROADS (4 ESTABLISHMENTS)—Continued.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Carpenters' helpers.....	2	M.	Hawaiian	6	60	60	60
2		7	M.	Japanese	6	60	60	60
3	Total	9	M.		6	60	60	60
4	Car repairer	1	M.	Portuguese	6	51	54	54
5	Cashiers	2	M.	American	6	48	53	50.5
6	Clerks	1	M.	American	6	60	60	60
7		1	M.	Hawaiian	6	59	59	59
8		2	M.	Part-Hawaiian	6	60	60	60
9	Total	4	M.		6	59	60	59.8
10	Clerk, chief	1	M.	German	6	60	60	60
11	Clerks, freight.....	5	M.	American	6	54	60	55.2
12		2	M.	Hawaiian	6	60	60	60
13	Total	7	M.		6	54	60	56.6
14	Clerks, wharf	4	M.	American	6	54	54	54
15	Conductors	8	M.	American	7	(d)	(d)	(d)
16		1	M.	American negro	6	60	60	60
17		2	M.	Hawaiian	e 6.5	f59	f59	f59
18	Total	11	M.		e 6.8	g59	g60	g59.5
19	Cook	1	M.	Chinese	7	70	70	70
20	Deck hands	3	M.	Hawaiian	6	60	60	60
21	Engineers, donkey engine.....	1	M.	Chinese	6	59	59	59
22		1	M.	Hawaiian	6	60	60	60
23	Total	2	M.		6	59	60	59.5
24	Engineers, locomotive.....	8	M.	American	e 6.9	f60	f60	f60
25		1	M.	German	6	60	60	60
26		2	M.	Hawaiian	7	(d)	(d)	(d)
27		2	M.	Part-Hawaiian	6	60	60	60
28		5	M.	Portuguese	e 6.8	f59	f59	f59
29	Total	18	M.		e 6.7	h59	h60	h59.8
30	Engineer, tug	1	M.	American	6	60	60	60
31	Engine helpers	3	M.	Portuguese	6	54	54	54
32	Engine wiper.....	1	M.	Chinese	6	59	59	59
33	Firemen, locomotive.....	6	M.	American	7	(d)	(d)	(d)
34		8	M.	Hawaiian	e 6.6	i59	i60	i59.7
35		4	M.	Portuguese	e 6.5	g60	g60	g60
36	Total	18	M.		e 6.7	h59	h60	h59.8
37	Fireman, shops.....	1	M.	American	6	53	53	53
38	Fireman, tug	1	M.	Portuguese	6	60	60	60
39	Foremen	1	M.	American	6	60	60	60
40		1	M.	German	6	60	60	60
41		1	M.	Hawaiian	6	60	60	60
42	Total	3	M.		6	60	60	60

a Also house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

b See notes to details.

c 1 employee furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

d Irregular.

e Average.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

STEAM RAILROADS (4 ESTABLISHMENTS)—Continued.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
			a 2								a \$1.50	1
			a 7								a 1.50	2
			a 9								a 1.50	3
				1							2.00	4
									1	1	5.27	5
					a 1						a 2.87	6
			1								1.91	7
	a 2										a .82	8
	a 2		1		a 1						b 1.61	9
										a 1	a 5.17	10
				a 1		2	1	1			c 3.37	11
				a 2							a 2.30	12
				a 3		2	1	1			b 3.06	13
						4					3.00	14
					1	7					3.35	15
			a 1								a 1.91	16
			2								1.68	17
			a 3		1	7					c 2.91	18
	a 1										a .82	19
			a 3								a 1.50	20
			1								1.50	21
			a 1								a 2.30	22
			1	a 1							c 1.90	23
						1	c 7				c 3.76	24
						a 1					a 3.33	25
				2							2.46	26
			a 1	a 1							a 2.10	27
			2	2			1				2.57	28
			c 3	c 5		c 2	c 8				b 3.08	29
										a 1	a 5.75	30
	3										.72	31
		1									1.00	32
			4	2							1.71	33
		f 3	4	1							f 1.59	34
	a 1		c 2	1							f 1.66	35
	a 1	f 3	c 10	4							b 1.64	36
			1								1.50	37
				a 1							a 2.30	38
				a 1				a 1			a 2.30	39
				a 1							a 3.50	40
											a 2.00	41
				a 2			a 1				a 2.60	42

f Hours reported for 1 employee only.

a Hours reported for 2 employees only.

b Hours reported for 5 employees only.

c Hours reported for 3 employees only.

f 2 employees furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
STEAM RAILROADS (4 ESTABLISHMENTS)—Continued.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Foreman, general	1	M.	Hawaiian	6	60	60	60
2	Foreman, laborers	1	M.	Hawaiian	6	59	59	59
3	Foremen, section men	15	M.	Japanese	6	53	60	53.6
4	Foreman, stevedores	1	M.	Portuguese	6	60	60	60
5	Foremen, wharf	2	M.	American	6	54	54	54
6	Freight handlers	13	M.	Japanese	6	53	54	53.3
7	Laborers	8	M.	Chinese	6	59	59	59
8		94	M.	Hawaiian	6	59	60	59.9
9		93	M.	Japanese	6	60	60	60
10	Total	195	M.		6	59	60	59.9
11	Laborers, lumber yard	2	M.	Chinese	6	60	60	60
12		1	M.	Japanese	6	60	60	60
13	Total	3	M.		6	60	60	60
14	Machinists	7	M.	American	6	53	54	53.9
15		1	M.	Chinese	6	54	54	54
16		6	M.	Hawaiian	6	54	54	54
17		1	M.	Part-Hawaiian	6	60	60	60
18		2	M.	Portuguese	6	54	59	56.5
19	Total	17	M.		6	53	60	54.6
20	Machinists' apprentice	1	M.	American	6	53	53	53
21	Machinists' helpers	1	M.	American	6	54	54	54
22		1	M.	Hawaiian	6	54	54	54
23		3	M.	Japanese	6	54	60	58
24		4	M.	Portuguese	6	54	60	55.5
25	Total	9	M.		6	54	60	56
26	Master car builder	1	M.	American	6	54	54	54
27	Master mechanics	2	M.	American	6	53	54	53.5
28		1	M.	Portuguese	6	60	60	60
29	Total	3	M.		6	53	60	55.7
30	Molders	1	M.	American	6	53	53	53
31		2	M.	Hawaiian	6	54	54	54
32		3	M.	Portuguese	6	54	54	54
33	Total	6	M.		6	53	54	53.8
34	Molders' helper	1	M.	Hawaiian	6	53	53	53
35	Oiler	1	M.	Japanese	6	54	54	54
36	Oiler, car	1	M.	Irish	6	53	53	53
37	Oil tender	1	M.	Japanese	7	(A)	(A)	(A)
38	Painters	3	M.	Chinese	6	54	54	54
39		1	M.	Part-Hawaiian	6	53	53	53
40	Total	4	M.		6	53	54	53.8
41	Porters	1	M.	American negro	7	70	70	70
42		2	M.	Hawaiian	6	60	60	60
43		3	M.	Japanese	6	60	60	60
44	Total	6	M.		6	60	60	60

^a Also house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

^b 82 employees furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

^c 63 employees furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

^d See notes to details.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

STEAM RAILROADS (4 ESTABLISHMENTS)—Continued.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
				1					a 1		a \$4.79	1
		3	11				1				2.49	2
						a 1					1.66	3
								2			a 3.45	4
		4	9								4.00	5
											1.66	6
		8									1.25	7
		12	a 82								b 1.47	8
		a 53	a 40								a 1.32	9
		e 78	a 122								d 1.39	10
		a 1		a 1							a 1.62	11
			a 1								a 1.50	12
		a 1	a 1	a 1							a 1.58	13
								1	4	2	4.60	14
			1								1.80	15
			2					3			2.93	16
				a 1							a 2.30	17
			1			1					2.62	18
			4	e 2		1		4	4	2	e 3.48	19
			1								1.75	20
		f 1									f 1.08	21
	f 1										f .90	22
			g 3								g 1.53	23
	a 1		1	2							e 1.73	24
	d 2	f 1	g 4	2							d 1.50	25
										1	7.67	26
									1	1	6.23	27
									a 1		a 4.79	28
									e 2	1	e 5.75	29
										1	5.00	30
		1			1						2.15	31
		1			1	1					2.06	32
		2		1	1	1				1	2.58	33
		1									1.25	34
		1			1						1.30	35
		1									2.30	36
											1.15	37
				1	2						2.63	38
				1							2.20	39
				2	2						2.52	40
		1									1.31	41
		a 1	a 1								a 1.25	42
	a 2	1									g .91	43
	a 2	e 3	a 1								d 1.09	44

e 1 employee furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

f Boy.

g 2 employees furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

h Irregular.

i Average.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
STEAM RAILROADS (4 ESTABLISHMENTS).—Concluded.

Marginal number.	Occupation.	Employees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low-est.	High-est.	Average.
1	Road masters.....	3	M.	American.....	a 6.3	b 59	b 60	b 59.5
2		1	M.	Japanese.....	6	53	53	53
3	Total.....	4	M.		a 6.3	c 53	c 60	c 57.3
4	Roundhouse men.....	1	M.	American.....	7	63	63	63
5		1	M.	Hawaiian.....	7	63	63	63
6		1	M.	Portuguese.....	7	63	63	63
7	Total.....	3	M.		7	63	63	63
8	Sailmaker.....	1	M.	Japanese.....	6	60	60	60
9	Scalesman.....	1	M.	American.....	7	(f)	(f)	(f)
10	Scavenger.....	1	M.	Chinese.....	6	60	60	60
11	Section men.....	162	M.	Japanese.....	6	59	60	59.8
12		4	M.	Portuguese.....	6	60	60	60
13	Total.....	166	M.		6	59	60	59.8
14	Station masters.....	4	M.	Hawaiian.....	6	59	59	59
15	Stenographer.....	1	F.	American.....	6	48	48	48
16	Storekeepers.....	1	M.	American.....	6	54	54	54
17		1	M.	French.....	6	53	53	53
18	Total.....	2	M.		6	53	54	53.5
19	Telephone operator.....	1	M.	American.....	7	(f)	(f)	(f)
20	Track walker.....	1	M.	Chinese.....	6	59	59	59
21	Train dispatchers.....	3	M.	American.....	7	(f)	(f)	(f)
22	Watchmen.....	1	M.	Hawaiian.....	7	84	84	84
23		7	M.	Japanese.....	7	63	84	81
24		3	M.	Portuguese.....	7	84	84	84
25	Total.....	11	M.		7	63	84	82.1
26	Wharfingers.....	1	M.	American.....	6	54	54	54
27		1	M.	Portuguese.....	6	53	53	53
28	Total.....	2	M.		6	53	54	53.5
29	Wharfmen.....	81	M.	Japanese.....	6	54	54	54
30	Winch drivers.....	6	M.	Hawaiian.....	6	60	60	60
31	Wiper.....	1	M.	Japanese.....	6	60	60	60
32	Yard masters.....	1	M.	American.....	7	(f)	(f)	(f)
33		1	M.	Irish.....	7	(f)	(f)	(f)
34	Total.....	2	M.		7	(f)	(f)	(f)

STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS).

35	Carpenters.....	1	M.	American.....	6	54	54	54
36		4	M.	Hawaiian.....	6	54	54	54
37		1	M.	Portuguese.....	6	54	54	54
38	Total.....	6	M.		6	54	54	54

a Average.

b Hours reported for 2 employees only.

c Also house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

d 1 employee furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

STEAM RAILROADS (4 ESTABLISHMENTS)—Concluded.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
					c1	1				1	d \$4.34 2.30	1
				1								2
				1		c1	1			1	d 3.83 1	3
		1									1.48	4
		1									1.23 2.13	5
				1								6
		2		1							1.61 1	7
			c1								c 1.50	8
						1					3.29	9
		c1									c 1.00	10
	37	o 120	c 5								h .98	11
	1	2	1								1.27 1	12
	38	o 122	o 6								h .98 1	13
	4										.96	14
						1					3.26	15
				1							2.49	16
						1					3.45	17
				1		1					2.97	18
			1								1.97 1	19
		1									1.25	20
					1			1	1		3.89	21
		1									1.15	22
	5	1	1								1.10 1	23
		1	c1	1							d 1.81	24
	5	3	d 2	1							d 1.80	25
										1	6.71	26
			1								1.72 1	27
			1							1	4.21 1	28
		76	5								1.16 1	29
	c1			c 6							c 2.00	30
											c .75	31
						1			1		4.93	32
											2.96	33
					1				1		3.94 1	34

STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS).

		1	1	1			1		1		\$4.50	35
							1				2.37	36
											3.25	37
		1	1	1		1	1		1		2.87	38

* Hours reported for 3 employees only.

f Irregular.

o 5 employees furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

A See notes to details.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS)—Continued.

Marginal number.	Occupation.	Employees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low-est.	High-est.	Average.
1	Clerk, coal.....	1	M.	Hawaiian.....	6	60	60	60
2	Clerks, freight.....	1	M.	American.....	7	(b)	(b)	(b)
3		2	M.	English.....	6	e 60	e 60	e 60
4		3	M.	Hawaiian.....	d 6.3	(b)	(b)	(b)
5	Total.....	6	M.		d 6.3	e 60	e 60	e 60
6	Clerks, store.....	1	M.	American.....	6	60	60	60
7		1	M.	Portuguese.....	6	60	60	60
8	Total.....	2	M.		6	60	60	60
9	Clerks, wharf.....	1	M.	American.....	6	60	60	60
10		1	M.	English.....	6	60	60	60
11	Total.....	2	M.		6	60	60	60
12	Cooks.....	17	M.	Chinese.....	6	(b)	(b)	(b)
13		2	M.	Japanese.....	6	(b)	(b)	(b)
14		1	M.	Spanish.....	6	(b)	(b)	(b)
15	Total.....	20	M.		6	(b)	(b)	(b)
16	Cooks' helper.....	1	M.	Chinese.....	6	(b)	(b)	(b)
17	Drayman.....	1	M.	Portuguese.....	6	60	60	60
18	Electricians.....	1	M.	American.....	6	(b)	(b)	(b)
19		1	M.	English.....	6	60	60	60
20		1	M.	Hawaiian.....	6	(b)	(b)	(b)
21	Total.....	3	M.		6	e 60	e 60	e 60
22	Engineers, assistant.....	12	M.	American.....	6	g 72	g 72	g 72
23		4	M.	English.....	6	f 72	f 72	f 72
24		1	M.	Greek.....	6	(b)	(b)	(b)
25		1	M.	Hawaiian.....	6	(b)	(b)	(b)
26		1	M.	Portuguese.....	6	j 72	j 72	j 72
27	Total.....	19	M.		6	k 72	k 72	k 72
28	Engineers, chief.....	10	M.	American.....	6	i 72	i 72	i 72
29		3	M.	English.....	6	f 72	f 72	f 72
30		1	M.	Hawaiian.....	6	(b)	(b)	(b)
31	Total.....	14	M.		6	m 72	m 72	m 72
32	Engineers, donkey engine.....	1	M.	German.....	6	(b)	(b)	(b)
33		2	M.	Hawaiian.....	6	(b)	(b)	(b)
34		1	M.	Japanese.....	6	(b)	(b)	(b)
35		1	M.	Portuguese.....	6	(b)	(b)	(b)
36		1	M.	S. Sea Islander.....	6	(b)	(b)	(b)
37	Total.....	6	M.		6	(b)	(b)	(b)
38	Engineer, port.....	1	M.	Scotch.....	6	(b)	(b)	(b)
39	Firemen.....	42	M.	Chinese.....	6	(b)	(b)	(b)
40		1	M.	English.....	6	(b)	(b)	(b)
41		2	M.	Hawaiian.....	6	(b)	(b)	(b)
42		2	M.	Japanese.....	6	(b)	(b)	(b)
43		1	M.	Swedish.....	6	(b)	(b)	(b)
44	Total.....	48	M.		6	(b)	(b)	(b)

a 1 employee receives also board while at sea, valued at 75 cents per day.

b Irregular.

c Hours reported for 1 employee only.

d Average.

e Also board, valued at \$10 per month.

f 1 employee receives also board, valued at \$25 per month.

g 9 hours per day while in port. Hours reported for 8 employees only.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS)—Continued.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
							a 1				a \$3.83	1
					1						2.50	2
				a 1					1		a 4.02	3
		2				1					1.93	4
		2		a 1	1	1				1	a 2.72	5
										1	5.75	6
			1								1.84	7
			1							1	3.79	8
						1			1		4.79	9
						1					2.68	10
						1			1		3.73	11
	e 5		e 10	e 2							e 1.63	12
	e 2		e 1								e 1.22	13
											e 1.99	14
		e 7	e 11	e 2							e 1.60	15
e 1											e.50	16
			1								1.84	17
			1								1.91	18
			f 1								f 1.91	19
			1								1.91	20
			f 3								f 1.91	21
						h 2	h 2	h 8			h 3.92	22
						h 2	h 1	h 1			h 3.64	23
								h 1			h 4.02	24
								h 1			h 4.02	25
								h 1			h 4.04	26
						h 4	h 3	h 12			h 3.88	27
									h 2	h 6	h 5.07	28
									h 2	h 1	h 5.25	29
									h 1		h 4.98	30
									h 7	h 7	h 5.10	31
			e 1								e 1.91	32
			e 2								e 1.75	33
			e 1								e 1.75	34
			e 1								e 1.91	35
			e 1								e 1.75	36
			e 6								e 1.80	37
										1	7.67	38
	e 36	e 6									e 1.34	39
	e 1										e 1.32	40
	e 2										e 1.82	41
	e 2										e 1.83	42
	e 1										e 1.82	43
	e 42	e 6									e 1.34	44

* Also board, valued at \$25 per month.

† 9 hours per day while in port. Hours reported for 1 employee only.

‡ 9 hours per day while in port. Hours reported for 10 employees only.

§ 9 hours per day while in port. Hours reported for 5 employees only.

|| 9 hours per day while in port. Hours reported for 6 employees only.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS)—Continued.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Machinists	1	M.	Hawaiian	6	54	54	54
2	.....	1	M.	Portuguese	6	54	54	54
3	Total	2	M.	.....	6	54	54	54
4	Machinists' helpers	2	M.	Japanese	6	54	54	54
5	Masters	7	M.	American	6	a 72	a 72	a 72
6	.....	1	M.	English	6	(c)	(c)	(c)
7	.....	1	M.	German	6	(c)	(c)	(c)
8	.....	2	M.	Hawaiian	6	a 72	a 72	a 72
9	.....	2	M.	Irish	6	(c)	(c)	(c)
10	.....	1	M.	Norwegian	6	(c)	(c)	(c)
11	Total	14	M.	.....	6	a 72	a 72	a 72
12	Master, port	1	M.	American	6	(c)	(c)	(c)
13	Master, port, assistant	1	M.	Hawaiian	6	(c)	(c)	(c)
14	Mates, first	6	M.	American	6	f 72	f 72	f 72
15	.....	2	M.	English	6	d 72	d 72	d 72
16	.....	2	M.	German	6	(c)	(c)	(c)
17	.....	2	M.	Hawaiian	6	g 72	g 72	g 72
18	.....	1	M.	Norwegian	6	(c)	(c)	(c)
19	.....	1	M.	Russian	6	(c)	(c)	(c)
20	Total	14	M.	.....	6	a 72	a 72	a 72
21	Mates, second	3	M.	American	6	g 72	g 72	g 72
22	.....	2	M.	English	6	(c)	(c)	(c)
23	.....	6	M.	Hawaiian	6	f 72	f 72	f 72
24	.....	3	M.	Irish	6	(c)	(c)	(c)
25	Total	14	M.	.....	6	a 72	a 72	a 72
26	Mate, third	1	M.	Russian	6	(c)	(c)	(c)
27	Others	2	M.	American	6	(c)	(c)	(c)
28	.....	2	M.	Hawaiian	6	(c)	(c)	(c)
29	Total	4	M.	.....	6	(c)	(c)	(c)
30	Pantry men	2	M.	Chinese	6	(c)	(c)	(c)
31	Purser	10	M.	American	6	(c)	(c)	(c)
32	.....	2	M.	English	6	(c)	(c)	(c)
33	.....	1	M.	Hawaiian	6	(c)	(c)	(c)
34	.....	2	M.	Part-Hawaiian	6	(c)	(c)	(c)
35	Total	15	M.	.....	6	(c)	(c)	(c)
36	Quartermasters	2	M.	American	6	(c)	(c)	(c)
37	.....	1	M.	American negro	6	(c)	(c)	(c)
38	.....	1	M.	Australian	6	(c)	(c)	(c)
39	.....	2	M.	English	6	(c)	(c)	(c)
40	.....	3	M.	Filipino	6	(c)	(c)	(c)
41	.....	1	M.	German	6	(c)	(c)	(c)
42	.....	2	M.	Japanese	6	(c)	(c)	(c)
43	.....	1	M.	Norwegian	6	(c)	(c)	(c)
44	.....	2	M.	Portuguese	6	(c)	(c)	(c)
45	.....	1	M.	Spanish	6	(c)	(c)	(c)
46	.....	1	M.	Swedish	6	(c)	(c)	(c)
47	Total	17	M.	.....	6	(c)	(c)	(c)

a 9 hours per day while in port. Hours reported for 5 employees only.

b Also board, valued at \$25 per month.

c Irregular.

d 9 hours per day while in port. Hours reported for 1 employee only.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS)—Continued.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
					1	1					\$2.99	1
											3.25	2
					1	1					3.12	3
		1	1								1.32	4
										b7	b5.84	5
										b1	b5.75	6
										b1	b5.75	7
										b2	b5.74	8
										b2	b5.75	9
										b1	b5.75	10
										b14	b5.79	11
									1	1	9.58	12
											4.79	13
						b6					b3.45	14
						b1	b1				b3.64	15
						b2					b3.45	16
							b2				b3.83	17
						b1					b3.45	18
						b1					b3.45	19
							b11	b3			b3.53	20
					b3						b2.91	21
					b2						b2.87	22
					b6						b2.89	23
					b3						b2.87	24
						b14					b2.89	25
				b1							2.49	26
			b2								b1.72	27
			b2								b1.72	28
				b4							b1.72	29
		b2									b1.16	30
				b7	b1		b2				b2.68	31
				b1	b1						b2.60	32
				b1							b2.30	33
					b1					b1	b4.05	34
				b9	b3		b2			b1	b2.83	35
		b2									b1.33	36
		b1									b1.33	37
		b1									b1.15	38
		b2									b1.24	39
		b3									b1.33	40
		b1									b1.15	41
		b2									b1.33	42
		b1									b1.15	43
		b2									b1.33	44
		b1									b1.33	45
		b1									b1.15	46
		b17									b1.28	47

e9 hours per day while in port. Hours reported for 6 employees only.

f9 hours per day while in port. Hours reported for 3 employees only.

g9 hours per day while in port.

h Also board, valued at \$10 per month.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND

STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS).—Concluded.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Sailors.....	1	M.	American.....	6	a 72	a 72	a 72
2		231	M.	Hawaiian.....	6	a 72	a 72	a 72
3		93	M.	Japanese.....	6	a 72	a 72	a 72
4		1	M.	S. Sea Islander..	6	a 72	a 72	a 72
5	Total.....	326	M.		6	a 72	a 72	a 72
6	Shipwright.....	1	M.	American.....	6	60	60	60
7	Stenographer.....	1	F.	American.....	6	60	60	60
8	Stewards.....	15	M.	Chinese.....	6	55	55	55
9		1	M.	Japanese.....	6	55	55	55
10		1	M.	Portuguese.....	6	55	55	55
11		2	M.	Spanish.....	6	55	55	55
12	Total.....	19	M.		6	(5)	(5)	(5)
13	Waiters.....	24	M.	Chinese.....	6	55	55	55
14		1	M.	Japanese.....	6	55	55	55
15		2	M.	Spanish.....	6	55	55	55
16	Total.....	27	M.		6	(5)	(5)	(5)
17	Watchmen.....	1	M.	American.....	7	84	84	84
18		1	M.	German.....	7	84	84	84
19		1	M.	Norwegian.....	7	84	84	84
20		1	M.	Portuguese.....	6	72	72	72
21	Total.....	4	M.		6.8	72	84	81

STOCK RANCHES (2 ESTABLISHMENTS).

22	Blacksmith.....	1	M.	Part-Hawaiian..	6	60	60	60
23	Bookkeeper.....	1	M.	Part-Hawaiian..	6	60	60	60
24	Carpenter.....	1	M.	Hawaiian.....	6	60	60	60
25	Cook.....	1	M.	Chinese.....	7	70	70	70
26	Cowboys.....	28	M.	Hawaiian.....	7	r 84	r 84	r 84
27	Dairymen.....	1	M.	Hawaiian.....	7	84	84	84
28		5	M.	Japanese.....	7	(5)	(5)	(5)
29	Total.....	6	M.		7	r 84	r 84	r 84
30	Fence men.....	1	M.	American.....	6	(5)	(5)	(5)
31		5	M.	Hawaiian.....	6	r 60	r 60	r 60
32	Total.....	6	M.		6	r 60	r 60	r 60
33	Foremen, cowboys.....	3	M.	Hawaiian.....	7	r 84	r 84	r 84
34	Foreman, fence men.....	1	M.	Hawaiian.....	7	7	7	7
35	Foreman, foresters.....	1	M.	German.....	7	55	55	55
36	Foreman, horse boys.....	1	M.	American.....	7	55	55	55
37	Foreman, land cleaners.....	1	M.	Hawaiian.....	7	55	55	55
38	Foreman, sheep herders.....	1	M.	English.....	7	55	55	55
39	Foreman, teamsters.....	1	M.	German.....	7	55	55	55

a 9 hours per day while in port.

b \$1.50 per day while in port; receive also board, valued at \$10 per month.

c \$1.50 per day while in port; receive also board, valued at \$10 per month; 29 employees act as petty officers while at sea.

d \$1.50 per day while in port; receive also board, valued at \$10 per month; 6 employees act as petty officers while at sea.

e See notes to details.

f Irregular.

g Also board, valued at \$25 per month.

h Also board, valued at \$10 per month.

i Average.

j 1 employee receives also board, valued at \$10 per month.

k Also beef and poi.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905.—Continued.

STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS)—Concluded.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
	b 1										b \$0.83½	1
	b 58	c 173									c 1.00	2
	b 87	d 56									d .95½	3
	b 1										b .83½	4
	b 97	e 229									e .98½	5
										1	7.67	6
				1							2.30	7
	g 1	g 3	g 7	g 4							g 1.70½	8
		g 1	g 1								g 1.16½	9
		g 1	g 1								g 1.66½	10
				g 1							g 1.82	11
	g 1	g 5	g 8	g 5							g 1.68½	12
	h 9	h 15									h .96½	13
	h 1	h 1									h .99½	14
	h 1	h 1									h .99½	15
	h 11	h 16									h .97	16
				1							2.14½	17
	1		1								.98½	18
		h 1									1.97½	19
											h 1.00	20
	1	h 1	1	1							f 1.82½	21

STOCK RANCHES (2 ESTABLISHMENTS).

	k 1										k \$0.96	22
	l 1						k 1				k 3.83½	23
	m 1										l .96	24
o 7	k 14	p 6		1							m .66	25
	m 1										e .77	26
	q 5										m .82	27
											q .70½	28
	e 6										e .72½	29
		1									1.00	30
	k 3	e 2									e .85½	31
	k 3	e 3									e .87½	32
		f 2	k 1								f 1.28	33
		k 1									k 1.34½	34
		k 1									k 1.31½	35
			k 1								k 1.92½	36
	k 1										k .69	37
						1					3.29	38
	u 1										u 1.31½	39

f Also beef.

m Also house and board, valued at \$10 per month.

o Hours reported for 11 employees only.

p Including 1 boy. 1 employee receives also beef and poi; 6 furnished also with house and board, valued at \$10 per month.

q 5 employees receive also food when on the mountain; 1 receives also beef and poi.

r Also house, beef, and rice.

e Hours reported for 1 employee only.

f 1 employee furnished also with house and board, valued at \$10 per month.

k 1 employee receives also beef and poi; 1 furnished also with house and board, valued at \$10 per month.

u Also house, .

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND STOCK RANCHES (2 ESTABLISHMENTS)—Concluded.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Forester.....	1	M.	Part-Hawaiian.....	7	(a)	(a)	(a)
2	Harness maker.....	1	M.	Hawaiian.....	6	60	60	60
3	Horse boys.....	4	M.	Hawaiian.....	7	(a)	(a)	(a)
4	House boy.....	1	M.	Japanese.....	7	70	70	70
5	Laborers.....	2	M.	Japanese.....	6	60	60	60
6	Land cleaners.....	39	M.	Japanese.....	6	60	60	60
7	Sheep herders.....	2	M.	Chinese.....	7	(a)	(a)	(a)
8		1	M.	Hawaiian.....	7	(a)	(a)	(a)
9		1	M.	Japanese.....	7	(a)	(a)	(a)
10		1	M.	Portuguese.....	7	(a)	(a)	(a)
11	Total.....	5	M.		7	(a)	(a)	(a)
12	Stablemen.....	2	M.	Hawaiian.....	7	(a)	(a)	(a)
13		2	M.	Japanese.....	7	(a)	(a)	(a)
14	Total.....	4	M.		7	(a)	(a)	(a)
15	Teamsters.....	1	M.	German.....	7	(a)	(a)	(a)
16		2	M.	Hawaiian.....	7	(a)	(a)	(a)
17	Total.....	3	M.		7	(a)	(a)	(a)
18	Yard boys.....	1	M.	Chinese.....	7	(a)	(a)	(a)
19		4	M.	Japanese.....	7	h 70	h 70	h 70
20	Total.....	5	M.		7	h 70	h 70	h 70

STREET RAILWAY (1 ESTABLISHMENT).

21	Blacksmith.....	1	M.	Portuguese.....	6	54	54	54
22	Blacksmith's helper.....	1	M.	Portuguese.....	6	54	54	54
23	Car cleaners.....	3	M.	Chinese.....	6	54	54	54
24	Carpenters.....	1	M.	Canadian.....	6	54	54	54
25		1	M.	Scotch.....	6	54	54	54
26	Total.....	2	M.		6	54	54	54
27	Car receiver.....	1	M.	English.....	7	77	77	77
28	Cashier.....	1	M.	Scotch.....	7	63	63	63
29	Conductors.....	28	M.	American.....	7	63	63	63
30		1	M.	Canadian.....	7	63	63	63
31		2	M.	Danish.....	7	63	63	63
32		4	M.	English.....	7	63	63	63
33		2	M.	German.....	7	63	63	63
34		4	M.	Hawaiian.....	7	63	63	63
35		2	M.	Irish.....	7	63	63	63
36		1	M.	Norwegian.....	7	63	63	63
37		2	M.	Portuguese.....	7	63	63	63
38		4	M.	Scotch.....	7	63	63	63
39	Total.....	50	M.		7	63	63	63
40	Electrician.....	1	M.	American.....	7	63	63	63
41	Engineers, power house.....	2	M.	American.....	7	63	63	63
42	Engineer, power house chief.....	1	M.	American.....	7	56	56	56
43	Firemen, power house.....	2	M.	American.....	7	63	63	63
44	Laborer.....	1	M.	Portuguese.....	6	54	54	54
45	Linemen.....	2	M.	Swedish.....	6	54	54	54

a Irregular.

b Also beef and pol.

c Also house and board, valued at \$10 per month.

d Also house and beef.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

STOCK RANCHES (2 ESTABLISHMENTS)—Concluded.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
	b1										b\$0.69	1
	b4	b1									b1.34	2
e1											b.62	3
e2											c.46	4
	d39										c.42	5
											d.69	6
		2									1.00	7
	1	1									1.00	8
		1									.92	9
	1	4									1.00	10
											.98	11
e1	b1										f.57	12
	g2										g.69	13
e1	f3										f.63	14
	b1	b1									b1.00	15
	b1	b1									b.84	16
	b1	b2									b.89	17
b1											b.23	18
e1	g3										f.62	19
f2	g3										f.54	20

STREET RAILWAY (1 ESTABLISHMENT).

						1					\$3.00	21
			1								1.75	22
	3										1.27	23
									1		4.79	24
							1				3.50	25
								1		1	4.14	26
						1					3.29	27
									1		4.93	28
					28						2.70	29
				1							2.70	30
				2							2.70	31
				4							2.70	32
				2							2.70	33
				4							2.70	34
				2							2.70	35
				1							2.70	36
				2							2.70	37
				4							2.70	38
					50						2.70	39
						1			1		5.75	40
										1	3.53	41
										1	5.92	42
				2							2.46	43
		1									1.50	44
					2						2.78	45

e Boy. Receives also pol.

f See notes to details.

g Also beef.

h Hours reported for 1 employee only.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND STREET RAILWAY (1 ESTABLISHMENT)—Concluded.

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Machinists	2	M.	American	7	70	70	70
2		3	M.	Swedish	7	70	70	70
3	Total	5	M.		7	70	70	70
4	Machinists' helpers	1	M.	Danish	7	70	70	70
5		1	M.	German	7	70	70	70
6		1	M.	Portuguese	7	70	70	70
7	Total	3	M.		7	70	70	70
8	Motormen	28	M.	American	7	63	63	63
9		1	M.	Danish	7	63	63	63
10		1	M.	English	7	63	63	63
11		7	M.	German	7	63	63	63
12		4	M.	Hawaiian	7	63	63	63
13		4	M.	Irish	7	63	63	63
14		1	M.	Portuguese	7	63	63	63
15		3	M.	Scotch	7	63	63	63
16		2	M.	Swedish	7	63	63	63
17	Total	51	M.		7	63	63	63
18	Office boys	2	M.	Chinese	6	54	54	54
19	Oilers, track	4	M.	Portuguese	7	63	63	63
20	Painters	2	M.	Canadian	6	54	54	54
21	Painters' helpers	1	M.	American	6	54	54	54
22		1	M.	Hawaiian	6	54	54	54
23	Total	2	M.		6	54	54	54
24	Stableman	1	M.	American	6	54	54	54
25	Stableman's helper	1	M.	Portuguese	6	54	54	54
26	Storekeeper	1	M.	Canadian	6	48	48	48
27	Superintendent, general	1	M.	Swedish	7	70	70	70
28	Timekeeper	1	M.	Scotch	7	70	70	70
29	Track repairers	5	M.	Portuguese	6	54	54	54
30	Wipers and oilers	2	M.	Japanese	7	63	63	63

SUGAR PLANTATIONS (53 ESTABLISHMENTS).

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

31	Bag sewers	7	F.	Japanese	6	72	72	72
32		1	F.	Portuguese	6	72	72	72
33	Total	8	F.		6	72	72	72
34	Blacksmiths	11	M.	American	6	59	60	59.4
35		1	M.	English	6	59	59	59
36		4	M.	German	6	59	59	59
37		8	M.	Hawaiian	6	59	60.5	60.6
38		4	M.	Part-Hawaiian	6	59	60.2	60.2
39		10	M.	Japanese	6	59	72	60.8
40		1	M.	Norwegian	6	62	62	62
41		1	M.	Porto Rican	6	59	59	59
42		9	M.	Portuguese	6	59	60	59.7
43		1	M.	Russian	6	59	59	59
44		12	M.	Scotch	6	58	60	59.3
45	Total	62	M.		6	54	57.2	59.7

a Hours reported for 7 employees only.

b Hours reported for 3 employees only.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

STREET RAILWAY (1 ESTABLISHMENT)—Concluded.

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
.....						1	1	.....	.....	.....	\$3.61	1
.....				2	.....	1	.....	.....	.....	.....	2.74	2
.....				2	.....	2	1	.....	.....	.....	3.09	3
.....			1	.....	.....	.....	.....	.....	.....	.....	1.97	4
.....			1	.....	.....	.....	.....	.....	.....	.....	1.64	5
.....			1	.....	.....	.....	.....	.....	.....	.....	1.64	6
.....			3	.....	.....	.....	.....	.....	.....	.....	1.75	7
.....					28	.....	.....	.....	.....	.....	2.70	8
.....					1	.....	.....	.....	.....	.....	2.70	9
.....					1	.....	.....	.....	.....	.....	2.70	10
.....					7	.....	.....	.....	.....	.....	2.70	11
.....					4	.....	.....	.....	.....	.....	2.70	12
.....					4	.....	.....	.....	.....	.....	2.70	13
.....					1	.....	.....	.....	.....	.....	2.70	14
.....					3	.....	.....	.....	.....	.....	2.70	15
.....					2	.....	.....	.....	.....	.....	2.70	16
.....					51	.....	.....	.....	.....	.....	2.70	17
.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	1.05	18
.....			4	.....	.....	.....	.....	.....	.....	.....	1.50	19
.....						1	.....	1	.....	.....	3.70	20
.....				1	.....	.....	.....	.....	.....	.....	2.00	21
.....		1	.....	.....	.....	.....	.....	.....	.....	.....	1.00	22
.....		1	.....	1	.....	.....	.....	.....	.....	.....	1.50	23
.....					1	.....	.....	.....	.....	.....	2.50	24
.....			1	.....	.....	.....	.....	.....	.....	.....	1.50	25
.....									1	.....	4.79	26
.....										1	6.57	27
.....							1	.....	.....	.....	3.61	28
.....			4	1	.....	.....	.....	.....	.....	.....	1.65	29
.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.12	30

SUGAR PLANTATIONS (53 ESTABLISHMENTS).

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

.....	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	\$0.50	31
.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.50	32
.....	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.50	33
.....	.....	.....	.....	.....	.....	1	3	4	3	.....	4.13	34
.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	4.60	35
.....	.....	.....	.....	.....	.....	.....	2	1	1	.....	4.03	36
.....	.....	4	2	.....	1	1	1	.....	.....	.....	1.83	37
.....	.....	.....	.....	2	1	.....	1	.....	.....	.....	2.63	38
.....	1	3	5	1	.....	.....	.....	.....	.....	.....	1.54	39
.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	2.37	40
.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1.50	41
.....	.....	1	.....	2	2	1	1	1	1	.....	2.97	42
.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	2.00	43
.....	.....	.....	1	.....	.....	.....	3	2	5	1	c4.25	44
.....	1	8	9	7	3	3	c11	8	11	1	c3.07	45

c1 employee receives also board, valued at \$20 per month.

d Hours reported for 60 employees only.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Blacksmiths' helpers.....	2	M.	American	6	59	59	59
2		2	M.	German	6	59	59	59
3		15	M.	Hawaiian	6	59	62	59.7
4		1	M.	Part-Hawaiian ..	6	60	60	60
5		84	M.	Japanese	6	57	62.5	59.3
6		1	M.	Porto Rican	6	62	62	62
7		12	M.	Portuguese	6	54	62	59.3
8	Total	117	M.		6	54	62.5	59.4
9	Boatmen	15	M.	Hawaiian	6	d 59	d 60	d 59.4
10		1	M.	Portuguese	6	59	59	59
11	Total	16	M.		6	e 59	e 60	e 59.3
12	Boiler makers	1	M.	American	6	48	48	48
13		1	M.	Part-Hawaiian ..	6	60	60	60
14		1	M.	Japanese	6	59	59	59
15	Total	3	M.		6	48	60	55.7
16	Boiler makers' helpers.....	7	M.	Japanese	6	48	59	54.3
17	Bookkeepers	24	M.	American	6	54	72	60.4
18		1	M.	Australian	6	62	62	62
19		4	M.	Canadian	6	59	59	59
20		1	M.	Danish	6	60	60	60
21		9	M.	English	6	54	72	60.8
22		6	M.	German	6	59	72	63.5
23		1	M.	Hawaiian	6	60	60	60
24		1	M.	Irish	6	59.5	59.5	59.5
25		1	M.	New Zealander ..	6	59	59	59
26		1	M.	Norwegian	6	(g)	(g)	(g)
27		1	M.	Polish	6	60	60	60
28		10	M.	Scotch	6	59	60	59.2
29	Total	60	M.		6	h 54	h 72	h 60.4
30	Bookkeepers' assistants.....	15	M.	American	6	54	60	58.7
31		1	M.	Danish	6	59	59	59
32		1	M.	English	6	59	59	59
33		4	M.	German	6	59.5	60	59.6
34		2	M.	Hawaiian	6	59	60	59.5
35		2	M.	Part-Hawaiian ..	6	59	59	59
36		3	M.	Japanese	6	59	60	59.7
37		2	M.	Portuguese	6	59.5	60	59.8
38		4	M.	Scotch	6	58	59	58.8
39	Total	34	M.		6	54	60	59
40	Brakemen, railroad	5	M.	American	6	72	72	72
41		1	M.	Filipino	6	72	72	72
42		28	M.	Hawaiian	6	i 59	i 72	i 67.9
43		15	M.	Japanese	6	59	72	68.7
44		32	M.	Portuguese	6	m 59	m 72	m 68.1
45		2	M.	Samoan	6	72	72	72
46	Total	83	M.		6	n 59	n 72	n 68.5
47	Bricklayers.....	1	M.	Japanese	6	60	60	60
48		2	M.	Portuguese	6	62.5	62.5	62.5
49	Total	3	M.		6	60	62.5	61.7

a Including 1 boy.

b Including 4 boys.

c See notes to details.

d Hours reported for 5 employees only.

e Hours reported for 6 employees only.

f 1 employee receives also board, valued at \$20 per month.

g Irregular.

h Hours reported for 59 employees only.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
	2										\$0.80	1
	a2										a. 67½	2
	a4	9	1			1					a1.20	3
		1									1.00	4
	42	34	7	1							.99½	5
		1									1.00	6
	b8	4									b. 84½	7
	c58	49	8	1		1					c1.00	8
	2		2	11							1.81	9
			1								1.75	10
	2		3	11							1.80½	11
							1			f1	f5.00	12
			1								3.83½	13
											1.50	14
			1				1			f1	f3.44½	15
	5	2									.88	16
				1	2		3	2	2	14	5.85	17
											5.75	18
											6.82½	19
											6.71	20
							3		1	5	5.11	21
					2				3	1	4.31	22
				1							2.30	23
											8.62½	24
									1		4.79	25
							1				3.83½	26
										1	5.56	27
							1		1	8	6.02	28
				2	4		8	2	8	36	5.62½	29
	f1			2	3	2	4	1	1	1	a3.49	30
									1		4.79	31
									1		4.60	32
						2	1		1		3.73½	33
		2									1.91½	34
		1		1							1.91	35
		3									1.72½	36
				1		1					2.78	37
				1		1	f2				f3.35½	38
	f1		6	5	3	6	f7	1	4	1	c3.19	39
	j4	1									k. 91	40
		1									1.00	41
	6	22									1.01½	42
	11	4									.86	43
	a11	21									a. 96½	44
		2									1.00	45
	e32	51									e. 96	46
				1							1.75	47
				1							1.38½	48
			1	2							1.50½	49

i Boy.

j Receive also bonus of \$1 for each Sunday worked.

k 4 employees receive also bonus of \$1 for each Sunday worked.

l Hours reported for 24 employees only.

m Hours reported for 31 employees only.

n Hours reported for 73 employees only.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Bricklayers' helpers.....	3	M.	Japanese.....	6	60	60	60
2	Butchers.....	1	M.	American.....	6	60	60	60
3		1	M.	Chinese.....	6	(a)	(a)	(a)
4		3	M.	Hawaiian.....	b 6.3	c 60	c 70	c 65
5		1	M.	Japanese.....	6	59	59	59
6		3	M.	Portuguese.....	b 6.7	59	84	75.7
7	Total.....	9	M.		b 6.3	f 59	f 84	f 68
8	Butchers' helpers.....	2	M.	Japanese.....	b 6.5	60	84	72
9	Camp cleaners.....	3	M.	Japanese.....	6	60	60	60
10		12	F.	Japanese.....	7	14	28	21
11		4	M.	Porto Rican.....	6	60	60	60
12	Total.....	19			b 6.6	-14	60	35.4
13	Cane cutters.....	2,029	M.	Chinese.....	6	g 48	g 62.5	g 55.2
14		33	M.	Hawaiian.....	6	59	62	60.3
15		3,417	M.	Japanese.....	6	h 48	h 62.5	h 59.3
16		4	F.	Japanese.....	6	59	62.5	59.9
17		828	M.	Korean.....	6	i 48	i 65.5	i 58.7
18		371	M.	Porto Rican.....	6	g 48	g 62.5	g 59.9
19		58	M.	Portuguese.....	6	58	62	58.9
20		10	M.	S. Sea Islander..	6	60	60	60
21	Total.....	6,750			6	g 48	g 65.5	g 58.5
22	Cane cutters and loaders.....	50	M.	Porto Rican.....	6	(a)	(a)	(a)
23	Cane loaders.....	16	M.	Hawaiian.....	6	42	62.5	58.7
24		2,918	M.	Japanese.....	6	j 42	j 62.5	j 57.9
25		53	F.	Japanese.....	6	54	60	55.8
26		248	M.	Korean.....	6	k 42	k 62	k 58.2
27		43	M.	Porto Rican.....	6	g 42	g 62	g 59.2
28		7	M.	Portuguese.....	6	42	62	55.4
29	Total.....	3,285			6	j 42	j 62.5	j 57.8
30	Cane weighers.....	4	M.	American.....	6	72	72	72
31		2	M.	Chinese.....	6	72	72	72
32		1	M.	English.....	6	72	72	72
33		3	M.	German.....	6	69	72	71
34		18	M.	Hawaiian.....	6	60	72	71.2
35		3	M.	Part-Hawaiian..	6	72	72	72
36		17	M.	Japanese.....	6	72	72	72
37		1	M.	Norwegian.....	6	72	72	72
38		11	M.	Portuguese.....	6	l 69.5	72	69.7
39		3	M.	Scotch.....	6	72	72	72
40		1	M.	S. Sea Islander..	6	72	72	72
41	Total.....	64	M.		6	59.5	72	71.3

a Irregular.

b Average.

c Hours reported for 2 employees only.

d Estimated.

e Including estimated earnings of 1 employee.

f Hours reported for 7 employees only.

g Hours reported for 1,536 employees only.

h Including 801 contract workers.

i Including 203 contract workers.

j Wages reported for 1,640 employees only. See notes to details.

k Hours reported for 3,079 employees only.

l Including 680 contract workers.

m Contract workers.

n Wages reported for 3,252 employees only. See notes to details.

o Hours reported for 616 employees only.

p Wages reported for 673 employees only.

q Hours reported for 312 employees only.

r Including 2 boys.

s Including 59 contract workers. 9 employees receive also bonus of \$0.50 for every six days.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
		3									\$1.00	1
			1			1					3.06	2
	d1	1	1								1.50	3
		1									e1.06	4
		1	2								1.00	5
											1.61	6
	d1	3	4			1					e1.51	7
	1	1									.98	8
	3										.69	9
12											.19	10
1	3										.63	11
13	6										.36	12
	A1,275	f365									f.84	13
	83										.73	14
	B3,140	m112									m.70	15
	4										.38	16
	673										p.66	17
r2	s369										t.74	18
	u40	18									u.88	19
	10										.65	20
r6	t5,540	t495									w.74	21
	50										.70	22
	13	m3									x.82	23
	z1,492	aa1,105									bb.94	24
	m53										m.61	25
	dd155	cc81									ff.81	26
	hh26	tt17									t.97	27
		tt7									tt1.26	28
	tl,789	tl,213									kk.93	29
				4							2.34	30
		2		1							1.34	31
					1						2.30	32
	1	1									1.60	33
	5	10	3								1.07	34
		2	1								1.41	35
	14	3									.78	36
				1							2.49	37
	4	6	1								1.18	38
				2	1						2.36	39
			1								1.72	40
	24	24	6	8	2						1.24	41

† See notes to details.

* Including 1 boy.

e Hours reported for 5,448 employees only.

w Wages reported for 6,041 employees only. See notes to details.

z Including 3 contract workers.

y Hours reported for 1,808 employees only.

s Including 835 contract workers.

m Including 980 contract workers.

bb Wages reported for 2,597 employees only. See notes to details.

cc Hours reported for 166 employees only.

dd Including 37 contract workers.

ee Including 75 contract workers.

ff Wages reported for 236 employees only. See notes to details.

gg Hours reported for 26 employees only.

hh Including 13 contract workers.

ii Including 5 contract workers.

jj Hours reported for 2,076 employees only.

kk Wages reported for 2,952 employees only. See notes to details.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Mar- ginal num- ber.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Carpenters	13	M.	American	6	59	62	59.7
2		2	M.	Canadian	6	59	60	59.5
3		3	M.	Chinese	6	59	60	59.3
4		2	M.	English	6	59	72	65.5
5		1	M.	Filipino	6	59	59	59
6		6	M.	German	6	59	60	59.3
7		13	M.	Hawaiian	6	54	62.5	59.7
8		1	M.	Part-Hawaiian ..	6	60	60	60
9		67	M.	Japanese	6	54	72	59.6
10		3	M.	Norwegian	6	69	59.5	59.2
11		1	M.	Porto Rican	6	69	59	59
12		18	M.	Portuguese	6	58	62.5	59.3
13		3	M.	Scotch	6	69	60	59.3
14		1	M.	Swedish	6	59.5	59.5	59.5
15		1	M.	Swiss	6	62	62	62
16	Total	135	M.		6	54	72	59.6
17	Carpenters' helpers	6	M.	Chinese	6	59	60	59.3
18		1	M.	German	6	59	59	59
19		7	M.	Hawaiian	6	59	62	60
20		827	M.	Porto Rican	6	58	62.5	59.5
21		21	M.	Portuguese	6	58	72	60.6
22	Total	362	M.		6	58	72	59.6
23	Cashier	1	M.	American	6	60	60	60
24	Chemists	8	M.	American	6	59.5	72	70.4
25		2	M.	Canadian	6	59.5	72	65.8
26		1	M.	Dutch	6	72	72	72
27		5	M.	German	6	60	72	68.8
28		1	M.	Italian	6	72	72	72
29		1	M.	Scotch	6	72	72	72
30	Total	18	M.		6	59.5	72	69.7
31	Chemists, assistant	4	M.	American	6	60	72	69
32		2	M.	German	6	59.5	72	67.8
33		1	M.	Japanese	6	72	72	72
34	Total	8	M.		6	59.5	72	68.9
35	Chemists' helpers	2	M.	American	6	72	72	72
36		3	M.	Chinese	6	72	72	72
37		24	M.	Japanese	6	60	72	71
38	Total	29	M.		6	60	72	71.2
39	Clerk, field	1	M.	American	6	60	60	60
40	Clerks, freight	1	M.	American	6	72	72	72
41		1	M.	Hawaiian	6	72	72	72
42		1	M.	Japanese	6	59	69	59
43	Total	3	M.		6	59	72	67.7
44	Clerks, mill	1	M.	English	6	72	72	72
45		1	M.	Hawaiian	6	72	72	72
46	Total	2	M.		6	72	72	72
47	Clerk, statistical	1	M.	American	6	60	60	60

a Boy.

b Including 1 boy.

c See notes to details.

d Including 1 employee who receives salary from 2 establishments.

e Receives \$1,500 per crop.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
		1			1	1	3	1	4	2	\$4.00	1
		1	2				2				3.834	2
									1	1	1.49	3
			1								5.364	4
			2			1	2	1			1.75	5
	1	4	1	7							3.02	6
				1		1					1.60	7
	9	37	10	10		1					2.11	8
			2				1				1.37	9
			1								2.164	10
		2	2	5	6	1	2				1.914	11
							1	1	1		2.41	12
									1		4.33	13
				1					1		4.79	14
											2.49	15
	10	45	21	24	7	4	11	3	7	3	2.084	16
		6									1.00	17
	a1	3	4								a.77	18
	154	159	14								1.29	19
	b8	9	4								.954	20
											b1.094	21
	c163	177	22								c.97	22
										1	5.364	23
							1		1	6	6.43	24
							1			1	4.794	25
										1	8.624	26
									1	d4	d7.04	27
										1	7.67	28
										(c)		29
							2		2	d13	f6.62	30
				1	1	1				1	3.494	31
	a1				2						b2.134	32
					1						2.50	33
	a1			1	4	1				1	b2.86	34
	1	a1									b.994	35
	1	2									.95	36
	19	5									.86	37
	21	b8									b.874	38
			1								1.914	39
			1								1.924	40
	1			1							2.164	41
											.77	42
	1		1	1							1.62	43
		g1									g1.344	44
		1									1.154	45
		h2									h1.25	46
						1					3.064	47

f Average wages of 17 employees. See notes to details.

g Also share of net profits.

h 1 employee receives also share of net profits.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Clerks, store	9	M.	American	6	59	72	70.6
2		3	M.	Chinese	6	54	72	66
3		1	M.	English	6	72	72	72
4		1	M.	German	6	72	72	72
5		5	M.	Hawaiian	6	72	72	72
6		2	M.	Part-Hawaiian ..	6	72	72	72
7		98	M.	Japanese	6	54	72	68.6
8		5	M.	Korean	6	59.5	72	68.9
9		4	M.	Porto Rican	6	59.5	72	68.9
10		25	M.	Portuguese	6	59	72	69.2
11		2	M.	Scotch	6	59	59.5	59.3
12	Total	155	M.		6	54	72	68.9
13	Clerks, sugar	5	M.	American	6	60	72	69.6
14		1	M.	Chinese	6	60	60	60
15		2	M.	German	6	71	71	71
16		1	M.	Hawaiian	6	72	72	72
17		1	M.	Part-Hawaiian ..	6	72	72	72
18		1	M.	Japanese	6	72	72	72
19		5	M.	Portuguese	6	59.5	72	66.6
20		1	M.	Scotch	6	72	72	72
21	Total	17	M.		6	59.5	72	68.9
22	Clerk, wharf	1	M.	Portuguese	6	60	60	60
23	Coachman	1	M.	Portuguese	7	70	70	70
24	Coal passers	4	M.	Hawaiian	6	72	72	72
25		110	M.	Japanese	6	60	72	61
26		1	M.	Portuguese	6	59.5	59.5	59.5
27	Total	115	M.		6	59.5	72	61.4
28	Contract cultivators	2	M.	American	6	(k)	(k)	(k)
29		689	M.	Chinese	6	m 57	m 72	m 62.9
30		6	M.	Hawaiian	6	p 57	p 57	p 57
31		4,491	M.	Japanese	6	p 57	p 72	p 61.6
32		47	F.	Japanese	6	r 57	r 57	r 57
33		460	M.	Korean	6	t 57	t 72	t 60.9
34		139	M.	Porto Rican	6	v 59.5	v 59.5	v 59.5
35		2	F.	Porto Rican	6	(k)	(k)	(k)
36		6	M.	Portuguese	6	(k)	(k)	(k)
37		4	F.	Portuguese	6	(k)	(k)	(k)
38	Total	5,846			6	y 57	y 72	y 61.4
39	Cooks	14	M.	Chinese	7	aa 70	aa 70	aa 70
40		11	M.	Japanese	7	70	70	70
41		8	F.	Japanese	7	70	70	70
42		2	F.	Korean	7	70	70	70
43	Total	35			7	ff 70	ff 70	ff 70

a Including 1 boy.

b Also share of net profits.

c See notes to details.

d Boys.

e Including 1 boy; 6 employees receive also share of net profits.

f 1 employee receives also share of net profits.

g Hours reported for 4 employees only.

h Including 4 boys; 1 employee receives also share of net profits.

i 2 employees receive also share of net profits.

j Hours reported for 154 employees only.

k Irregular.

l Not reported.

m Hours reported for 93 employees only.

n Estimate.

o Estimate. Wages reported for 199 employees only.

p Hours reported for 457 employees only.

q Estimate. Wages reported for 2,726 employees only.

r Hours reported for 1 employee only.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
.....	a 2	b 1	1	1	1	1	1	.....	1	.....	c \$2.47	1
.....	1	.....	2	.....	.....	.....	.....	.....	.....	.....	1.41	2
.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	4.79	3
.....	1	.....	2	1	.....	1	.....	.....	.....	.....	3.83	4
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.98	5
.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....	3.06	6
d 2	e 45	f 37	11	1	2	.....	.....	.....	.....	.....	1.09	7
1	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.82	8
d 1	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.97	9
.....	h 12	f 5	8	.....	.....	.....	.....	.....	.....	.....	1.17	10
.....	.....	.....	b 1	.....	.....	.....	1	.....	.....	.....	f 2.87	11
c 4	e 64	e 48	e 25	3	3	2	3	.....	3	.....	e 1.29	12
.....	.....	.....	2	1	2	.....	.....	.....	.....	.....	2.35	13
.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	1.00	14
.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.92	15
.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1.50	16
.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1.91	17
.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1.34	18
.....	3	.....	1	1	.....	.....	.....	.....	.....	.....	1.22	19
.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1.91	20
.....	4	3	6	2	2	.....	.....	.....	.....	.....	1.61	21
.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1.72	22
.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1.15	23
.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.77	24
.....	110	.....	.....	.....	.....	.....	.....	.....	.....	.....	.83	25
.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1.00	26
.....	114	1	.....	.....	.....	.....	.....	.....	.....	.....	.83	27
(i)	(i)	(i)	(i)	(i)	(i)	(i)	(i)	(i)	(i)	(i)	(i)	28
.....	n 179	n 20	.....	.....	.....	.....	.....	.....	.....	.....	.84	29
(i)	(i)	(i)	(i)	(i)	(i)	(i)	(i)	(i)	(i)	(i)	(i)	30
.....	n 2,631	n 95	.....	.....	.....	.....	.....	.....	.....	.....	7.84	31
.....	.....	n 2	.....	.....	.....	.....	.....	.....	.....	.....	1.16	32
.....	n 440	.....	.....	.....	.....	.....	.....	.....	.....	.....	n 74	33
.....	n 71	.....	.....	.....	.....	.....	.....	.....	.....	.....	n 81	34
(i)	(i)	(i)	(i)	(i)	(i)	(i)	(i)	(i)	(i)	(i)	(i)	35
.....	n 1	.....	.....	.....	.....	.....	.....	.....	.....	.....	n 92	36
.....	n 4	.....	.....	.....	.....	.....	.....	.....	.....	.....	n 92	37
.....	n 3,326	n 117	.....	.....	.....	.....	.....	.....	.....	.....	n 83	38
1	bb 11	cc 2	.....	.....	.....	.....	.....	.....	.....	.....	e 79	39
dd 1	ee 9	1	.....	.....	.....	.....	.....	.....	.....	.....	e 69	40
8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.42	41
2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.42	42
gg 12	e 20	cc 8	.....	.....	.....	.....	.....	.....	.....	.....	e 65	43

a Estimate. Wages reported for 2 employees only.

f Hours reported for 309 employees only.

u Estimate. Wages reported for 440 employees only.

v Hours reported for 46 employees only.

w Estimate. Wages reported for 71 employees only.

x Estimate. Wages reported for 1 employee only.

y Hours reported for 910 employees only.

z Estimate. Wages reported for 3,443 employees only.

aa Hours reported for 13 employees only.

bb 3 employees receive also board, valued at \$10 per month; 3 receive also board, value not reported;

1 receives also profits of boarding house, and 1 receives also food.

cc 1 employee receives also board, valued at \$10 per month.

dd Also profits of boarding house.

ee 2 employees receive also food; 2 receive also board, valued at \$10 per month, and 1 receives also

board, value not reported.

ff Hours reported for 34 employees only.

gg 1 employee receives also profits of boarding house.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Dairyman	1	M.	Japanese	7	70	70	70
2	Ditch men	9	M.	Chinese	a 6.1	60	84	62.7
3		14	M.	Hawaiian	a 6.1	59	84	62.5
4		191	M.	Japanese	a 6.2	59	84	65.3
5		8	F.	Japanese	6	59.5	72	61.1
6		1	M.	Korean	6	59.5	59.5	59.5
7		9	M.	Portuguese	6	59	62	60
8	Total	232			a 6.2	59	84	64.7
9	Draftsmen	2	M.	American	6	59	60	59.5
10	Drivers, delivery wagon	1	M.	American	6	72	72	72
11		4	M.	Japanese	6	72	72	72
12		3	M.	Portuguese	6	72	72	72
13	Total	8	M.		6	72	72	72
14	Dynamo tenders	1	M.	Chinese	6	72	72	72
15		10	M.	Japanese	a 6.7	70	84	79
16		1	M.	Porto Rican	7	84	84	84
17	Total	12	M.		a 6.7	70	84	78.8
18	Electricians	2	M.	American	6	59	72	65.5
19		3	M.	Hawaiian	6	60	72	68
20		2	M.	Portuguese	6	59.5	72	65.8
21		1	M.	Swiss	6	72	72	72
22	Total	8	M.		6	59	72	67.3
23	Electricians' helpers	1	M.	American	6	72	72	72
24		2	M.	Hawaiian	6	59	72	65.5
25	Total	3	M.		6	59	72	67.7
26	Engineers, chief	2	M.	American	6	72	72	72
27		1	M.	Scotch	6	60	60	60
28	Total	3	M.		6	60	72	68
29	Engineers, donkey engine	1	M.	American	6	59	59	59
30		3	M.	Chinese	a 6.3	760	784	772
31		2	M.	German	6	59	59	59
32		2	M.	Hawaiian	6	59	59	59
33		1	M.	Part-Hawaiian	6	59	59	59
34		8	M.	Japanese	a 6.1	54	84	64.3
35		1	M.	Norwegian	6	60	60	60
36		4	M.	Portuguese	6	59	72	65.7
37		2	M.	Scotch	6	53	59.5	59.3
38	Total	24	M.		a 6.1	54	84	63
39	Engineers' helpers, locomotive	2	M.	Hawaiian	6	72	72	72
40		1	M.	Porto Rican	6	72	72	72
41		2	M.	Portuguese	6	72	72	72
42	Total	5	M.		6	72	72	72
43	Engineers' helpers, mill	2	M.	American	6	62.5	72	67.3
44		13	M.	Chinese	6	72	72	72
45		1	M.	German	6	71	71	71
46		5	M.	Hawaiian	6	60	72	69.6
47		83	M.	Japanese	6	60	72	71.4
48		12	M.	Portuguese	6	60	72	70
49	Total	116	M.		6	60	72	71.2

a Average.

b Boys.

c Including 1 boy.

d Wages reported for 1 employee only.

e Wages reported for 2 employees only.

f Hours reported for 2 employees only.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
		1									\$1.00	1
	9										.79	2
	12	1	1								.83	3
	144	46		1							.85	4
1	7										.54	5
	1										.77	6
	4	4	1								1.10	7
1	177	51	2	1							.85	8
					1					1	4.12	9
		1									1.03	10
	3	1									.93	11
	2	1									.98	12
	5	3									.96	13
	1										.92	14
	5	4	1								1.07	15
	1										.77	16
	7	4	1								1.04	17
				1		1					2.87	18
		2	1								1.49	19
		1			1						2.06	20
									1		4.60	21
		3	1	1	1	1			1		2.37	22
	b 1										b 6.61	23
		2									1.00	24
	b 1	2									c 87	25
										1	d 8.43	26
										1	7.67	27
										2	e 8.05	28
					1						2.87	29
		3									1.10	30
		1			1						2.06	31
		1		1							1.57	32
				1							2.30	33
	4	4									.95	34
					1						2.87	35
	1	1	2			1	1				1.52	36
					1						2.87	37
	5	10	2	2	4	1					1.59	38
	c 2										c 71	39
	1										.92	40
		f 2									f 1.15	41
	c 3	f 2									k 93	42
	b 2										b 77	43
	5	8									1.03	44
				1							2.30	45
	3	2									.90	46
	50	30	1	2							.98	47
		4	8								1.46	48
	60	44	9	3							1.04	49

g Hours reported for 1 employee only.

h Hours reported for 3 employees only.

i Hours reported for 21 employees only.

j Receive also bonus of \$1 for each Sunday worked.

k See notes to details.

l Including 2 boys.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Engineers' helpers, pump	1	M.	American	6	69	69	69
2		1	M.	Chinese	6	69	69	69
3		2	M.	Japanese	6	69	69	69
4		1	M.	Portuguese	6	69	69	69
5	Total	5	M.		6	69	69	69
6	Engineers' helpers, steam plow	1	M.	American	6	60	60	60
7		2	M.	Chinese	6	60	60	60
8		1	M.	Part-Hawaiian	6	59	59	59
9		72	M.	Japanese	6	57	66	59.4
10		13	M.	Portuguese	6	59	66	61.6
11	Total	89	M.		6	57	66	59.8
12	Engineers, locomotive	3	M.	American	6	59	72	67.7
13		2	M.	Chinese	6	72	72	72
14		1	M.	Danish	6	72	72	72
15		1	M.	Filipino	6	72	72	72
16		3	M.	German	6	65	65	65
17		27	M.	Hawaiian	6	59	72	69.9
18		10	M.	Japanese	6	65	72	70.7
19		37	M.	Portuguese	6	59	72	70.5
20		1	M.	Russian	6	72	72	72
21		3	M.	Scotch	6	72	72	72
22		1	M.	Spanish	6	72	72	72
23	Total	89	M.		6	59	72	70.3
24	Engineers, machine shop	2	M.	Hawaiian	6	59	60	59.5
25	Engineers, mill	19	M.	American	6	59	72	71.3
26		2	M.	Australian	6	72	72	72
27		3	M.	Canadian	6	72	72	72
28		6	M.	English	6	60	72	70
29		1	M.	French	6	72	72	72
30		10	M.	German	6	60	72	70
31		1	M.	Hawaiian	6	72	72	72
32		1	M.	Japanese	6	72	72	72
33		3	M.	Portuguese	6	62.5	72	68.8
34		7	M.	Scotch	6	60	72	70.3
35	Total	53	M.		6	59	72	70.7
36	Engineers, mill, assistant	5	M.	American	6	60	72	69.6
37		3	M.	Chinese	6	72	72	72
38		1	M.	French	6	72	72	72
39		1	M.	German	6	72	72	72
40		2	M.	Hawaiian	6	72	72	72
41		6	M.	Japanese	6	72	72	72
42		1	M.	Norwegian	6	72	72	72
43		12	M.	Portuguese	6	72	72	72
44		1	M.	Scotch	6	72	72	72
45		1	M.	Spanish	6	72	72	72
46	Total	53	M.		6	60	72	71.6
47	Engineers, pump	11	M.	American	66.5	72	84	78.5
48		4	M.	Chinese	66.3	69	84	72.8
49		3	M.	English	6	72	72	72
50		3	M.	German	66.7	59	84	75.7
51		12	M.	Hawaiian	66.5	69	84	77.8
52		30	M.	Japanese	66.5	62.5	84	77
53		4	M.	Norwegian	6	72	72	72
54		11	M.	Portuguese	66.4	62	84	75.5
55		2	M.	Russian	6	72	72	72
56		2	M.	Scotch	66.5	72	84	78
57	Total	82	M.		66.4	659	984	876.4

a1 employee receives also bonus of \$1 for each Sunday worked.
 b2 employees receive also bonus of \$1 for each Sunday worked.
 cReceives also bonus of \$1 for each Sunday worked.
 dSee notes to details.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
	1	1									\$1.15½	1
	1	1									.92	2
	1	1									1.07½	3
			1								1.91½	4
	2	2	1								1.23	5
		1									1.00	6
	1	1									.96½	7
	39	31	2								.69	8
	5	8									.92	9
											1.00½	10
	46	41	2								.93½	11
		2		1		1	1				3.06½	12
											1.00	13
			1			1					3.06½	14
											1.91½	15
	1	7	11	4	3		1				1.41	16
		a 9	1								1.76½	17
	1	5	b 21	5	3	2					a 1.21	18
				c 1	3						b 1.88	19
											c 2.49	20
											2.81½	21
											1.34	22
	2	a 26	b 35	a 11	9	4	2				d 1.82	23
		1						1			2.60½	24
							1		2	16	6.60	25
										2	7.50½	26
										3	7.88	27
									1	5	6.39	28
										1	5.75	29
							1			9	6.19½	30
									1		4.79	31
					1	1					3.26	32
								1			3.13	33
									1	6	6.45½	34
				1	1	1	2	1	5	42	6.27½	35
				1		1	1	1	1		3.66½	36
				1		2					2.81	37
									1		4.60	38
			1								1.91½	39
		1	1								1.62½	40
		1	3	2							1.72½	41
				1							2.30	42
		1	4	5	1	1					2.07	43
							1				3.64	44
			1								1.91½	45
		3	10	10	1	4	2	1	2		2.41	46
		2	2	2	1	1		2		3	3.71	47
											1.28½	48
			1			3					3.38½	49
				4	2	2					2.70½	50
	9	14	5	2							2.39	51
											1.19	52
	2	2	2	4		1	2		1		3.97½	53
						1					1.89½	54
						2					3.45	55
										2	6.57½	56
	11	18	16	12	3	12	2	2	1	6	2.26	57

* Average.

f Hours reported for 3 employees only.

v Hours reported for 81 employees only.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week	Hours per week.		
						Low- est.	High- est.	Average.
1	Engineers, pump, assistant.....	1	M.	American	7	84	84	84
2		4	M.	Japanese	6	72	72	72
3		2	M.	Portuguese	^a 6.5	62	84	73
4	Total	7	M.	.....	^a 6.3	62	84	71
5	Engineers, pump, chief.....	3	M.	American	^a 6.3	60	84	72
6		1	M.	English	6	72	72	72
7		1	M.	Portuguese	7	84	84	84
8	Total	5	M.	.....	^a 6.4	60	84	74.4
9	Engineers, steam plow.....	4	M.	American	6	59	72	63.1
10		1	M.	Canadian	6	66	66	66
11		6	M.	English	6	57	66	60.1
12		2	M.	German	6	59	59	59
13		6	M.	Hawaiian	6	59	66	61.3
14		16	M.	Japanese	6	^b 59.5	72	60.8
15		2	M.	Norwegian	6	59	59	59
16		1	M.	Porto Rican	6	62	62	62
17		19	M.	Portuguese	6	59	66	60.8
18		1	M.	Scotch	6	60	60	60
19	Total	58	M.	.....	6	57	72	60.6
20	Engineers, steam plow, assistant ..	3	M.	American	6	59	59	59
21		4	M.	German	6	59	59	59
22		5	M.	Japanese	6	57	72	62.4
23		7	M.	Portuguese	6	59	72	60.9
24	Total	19	M.	.....	6	57	72	60.6
25	Engineer, steam plow, chief	1	M.	German	6	59	59	59
26	Engineers, traction engine.....	1	M.	Japanese	6	66	66	66
27		3	M.	Portuguese	6	62.5	62.5	62.5
28	Total	4	M.	.....	6	62.5	66	63.4
29	Engineer, traction engine, assistant.	1	M.	Japanese	6	66	66	66
30	Fence men.....	4	M.	Hawaiian	6	59.5	62	60.3
31		23	M.	Japanese	^b 6	59	84	61.1
32		25	M.	Portuguese	6	57	62	59.4
33	Total	52	M.	.....	^b 6	57	84	60.3
34	Field hands	1,218	M.	Chinese	6	^c 57	^d 62.5	^e 59.6
35		22	M.	German	6	59	60	59
36		838	M.	Hawaiian	6	57	62.5	60.1
37		1	F.	Hawaiian	6	59	59	59
38		1	M.	Part-Hawaiian ..	6	60	60	60
39		2	M.	Italian	6	59	59	59
40		11,820	M.	Japanese	6	^f 57	^g 72	^h 59.7
41		2,091	F.	Japanese	6	ⁱ 57	^j 72	^k 59.5
42		3,039	M.	Korean	6	57	72	59.7
43		44	F.	Korean	6	59	60	59.4
44		1	M.	Polish	6	60	60	60
45		1,005	M.	Porto Rican	6	57	72	60.6

^a Average.

^b 1 employee works 7 days per week.

^c Hours reported for 1,211 employees only.

^d Including 7 boys, contract workers.

^e Boys.

^f Including 9 boys.

^g See notes to details.

^h Including 19 boys.

ⁱ Hours reported for 11,805 employees only.

^j Including 10 boys and 27 contract workers.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Classified wages per day.												Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.			
						1						\$3.29	1
	1	3										1.22	2
	1							1				2.44	3
	2	3				1		1				1.864	4
								1		2		6.544	5
								1		1		7.67	6
												3.78	7
							1	1		3		6.214	8
									2	2		5.124	9
									1			4.79	10
							1			5		5.694	11
					1				1			3.784	12
	2	3	1									1.124	13
	1	14	1									1.15	14
								2				8.884	15
		1										1.23	16
		14	1	1	1	1	1					1.734	17
									1			4.79	18
	3	32	3	1	2	1	4		5	7		2.39	19
			2	1								1.834	20
			4									1.54	21
	1	1	2		1							1.524	22
		2	5									1.404	23
	1	3	13	1	1							1.53	24
										1		5.75	25
			1									1.534	26
			1	2								2.04	27
			2	2								1.914	28
	1											.844	29
	2	2										.904	30
	23	1										.794	31
	12	13										.944	32
	86	16										.874	33
	a1,217	1										a.65	34
e2	f18	2										a.714	35
e12	h314	12										a.74	36
1												.46	37
	1											.77	38
		2										1.00	39
e14	j11,806											a.65	40
1,780	311											.444	41
e10	m3,029											a.65	42
31	13											.49	43
	1											.844	44
e188	o816	1										a.64	45

* Hours reported for 2,004 employees only.

† Hours reported for 3,035 employees only.

‡ Including 14 boys, 4 of whom are contract workers.

§ Boys, including 16 contract workers.

|| Including 56 boys. 19 employees receive also bonus of \$2 for every 26 days worked; 89, 50 cents for every 6 days worked in a week, and 42, a bag of flour, valued at \$1.40, if 20 days or more are worked in a month.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Mar- ginal num- ber.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Field hands (concluded).....	97	F.	Porto Rican	6	59	62	59.6
2		1,082	M.	Portuguese	6	b 57	b 72	b 59.6
3		164	F.	Portuguese	6	57	62	59.4
4	Total	20,925			6	a 57	a 72	a 59.7
5	Firemen, locomotive	2	M.	Chinese	6	72	72	72
6		2	M.	German	6	65	65	65
7		10	M.	Hawaiian	6	60	72	70.8
8		7	M.	Japanese	6	65	72	70
9		19	M.	Portuguese	6	65	72	71.6
10	Total	40	M.		6	60	72	70.8
11	Firemen, mill	42	M.	Chinese	6	69	72	71.2
12		223	M.	Japanese	6	59	72	70.3
13		1	M.	Porto Rican	6	72	72	72
14		2	M.	Portuguese	6	72	72	72
15	Total	268	M.		6	59	72	70.6
16	Firemen, pump	1	M.	American	6	69	69	69
17		32	M.	Chinese	6	60	84	69.8
18		8	M.	Hawaiian	6	72	72	72
19		100	M.	Japanese	6	59.5	84	73.2
20		1	M.	Portuguese	7	84	84	84
21		1	M.	Spanish	7	84	84	84
22	Total	138	M.		6	59.5	84	73
23	Flumemen.....	30	M.	Chinese	6	60	72	62.3
24		16	M.	Hawaiian	6	72	72	72
25		209	M.	Japanese	6	60	72	69.7
26		14	M.	Porto Rican	6	62	72	62.7
27		10	M.	Portuguese	6	62	72	71
28	Total	279	M.		6	60	72	68.7
29	Foreman, carpenter.....	1	M.	American	6	59	59	59
30	Foremen, ditch men.....	4	M.	American	6	59	62	60.3
31		1	M.	Chinese	6	59.5	59.5	59.5
32		1	M.	German	6	59	59	59
33		3	M.	Japanese	6	59.5	60	59.7
34		7	M.	Portuguese	6	59.5	60	59.7
35	Total	16	M.		6	59	62	59.8
36	Foremen, firemen, mill.....	2	M.	American	6	72	72	72
37	Foremen, laborers, mill.....	2	M.	American	6	72	72	72
38	Foremen, laborers, railroad	1	M.	American	6	59	59	59
39		3	M.	Chinese	6	59	59	59
40		1	M.	Part-Hawaiian	6	59	59	59
41		12	M.	Japanese	6	59	62	59.8
42		1	M.	Portuguese	6	59	59	59
43	Total	18	M.		6	59	62	59.5
44	Foremen, mill	2	M.	American	6	72	72	72
45	Foremen, stablemen.....	8	M.	American	6	59	70	64.4
46		1	M.	Australian	7	70	70	70
47		3	M.	German	6	60	70	65

a Including 2 girls and 8 contract workers.

b Hours reported for 1,055 employees only.

c Boys, including 8 contract workers.

d Including 196 boys, 27 of whom are contract workers.

e See notes to details.

f Including 23 girls and 3 employees bagging cane at 14 cents per bag.

g Including 5 girls.

h Hours reported for 20,285 employees only.

i Boys.

j Including 1 boy.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
a 83	14										a \$0.43	1
e 215	d 827	40									e .69	2
f 111	g 53										f .45	3
e 2,447	e 18420	58									e .63	4
	2										.69	5
	f 2										f .73	6
	5	5									.92	7
	4	3									.87	8
	f 3	16									f .97	9
	e 16	24									e .91	10
	34	8									.84	11
	k 208	15									k .79	12
	1										.84	13
	1	1									1.04	14
	k 244	24									k .80	15
		1									1.15	16
	12	20									.94	17
	1	2									.95	18
	62	38									.95	19
	1										.90	20
		1									1.00	21
	76	62									.95	22
	12	18									.90	23
	f 15	1									f .81	24
	209										.77	25
	e 14										e .57	26
	p 9	1									p .73	27
	e 259	20									e .78	28
										1	6.13	29
					1		2			1	4.55	30
			1								1.72	31
							1				3.83	32
			3								1.78	33
			7								1.72	34
			11		1		3			1	2.57	35
				2							2.39	36
				2							2.39	37
				1							2.30	38
		3									1.16	39
				1							2.49	40
	2	8	2								1.14	41
		38	1								1.91	42
	2	11	3	2							1.33	43
		1	1								1.62	44
			2	3	1	1	1				2.57	45
					1						2.79	46
				1	2						2.67	47

k 4 employees receive also \$1 for each Sunday the boilers are cleaned.

l Average.

m Hours reported for 96 employees only.

n Hours reported for 134 employees only.

o Including 5 boys. 5 employees receive also bonus of 50 cents for every 6 days worked.

p Including 4 boys.

q Hours reported for 6 employees only.

r Hours reported for 15 employees only.

s Hours reported for 7 employees only.

t Hours reported for 2 employees only.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Mar- ginal num- ber.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Foremen, stablemen (concluded)	2	M.	Hawaiian	a 6.5	59	70	61.5
2		1	M.	Part-Hawaiian	6	66	66	66
3		5	M.	Japanese	7	70	84	74.2
4		1	M.	Norwegian	7	84	84	84
5		12	M.	Portuguese	a 6.9	59	84	70.3
6		3	M.	Scotch	a 6.7	59.5	70	66.5
7	Total	36	M.		a 6.8	59	84	68.9
8	Foremen, teamsters and cultivators....	7	M.	American	a 6.1	59	72	62
9		1	M.	Canadian	7	(d)	(d)	(d)
10		2	M.	German	6	59	62	60.5
11		7	M.	Hawaiian	6	59	62.5	60.1
12		2	M.	Part-Hawaiian	6	59	60	59.5
13		2	M.	Japanese	6	59.5	59.5	59.5
14		10	M.	Portuguese	a 6.1	57	70	61
15		9	M.	Scotch	6	59	60	59.3
16	Total	40	M.		a 6.1	59	72	60.4
17	Foreman, wharf	1	M.	Hawaiian	6	60	60	60
18	Foresters	1	M.	Japanese	6	59	59	59
19		1	M.	Portuguese	6	59	59	59
20	Total	2	M.		6	59	59	59
21	Freight handlers	11	M.	Hawaiian	6	59	59	59
22		21	M.	Japanese	6	59	72	64.5
23	Total	32	M.		6	59	72	62.6
24	Gardener	1	M.	French	6	59	59	59
25	Harness makers	1	M.	Guam Islander	6	(d)	(d)	(d)
26		1	M.	Hawaiian	6	59	59	59
27		9	M.	Japanese	6	59	62.5	59.9
28		1	M.	Mexican	6	(d)	(d)	(d)
29		2	M.	Polish	6	59	59.5	59.2
30		14	M.	Portuguese	6	57	62.5	59.3
31		1	M.	Spanish	6	59	59	59
32		1	M.	Spanish-American	6	(d)	(d)	(d)
33	Total	30	M.		6	57	62.5	59.4
34	Hospital steward	1	M.	American	7	84	84	84
35	Interpreters	1	M.	Chinese	6	60	60	60
36		9	M.	Japanese	a 6.1	59	70	60.6
37		5	M.	Korean	a 6.2	59	70	61.5
38	Total	15	M.		a 6.1	59	70	60.8
39	Laborers, general	3	M.	American	6	60	60	60
40		3	M.	Chinese	6	59	59	59
41		2	M.	Fiji Islander	6	60	60	60
42		1	M.	Filipino	6	60	60	60
43		37	M.	Hawaiian	6	59	62.5	61
44		1	P.	Hawaiian	6	(d)	(d)	(d)
45		41	M.	Japanese	6	59	60	59.9

a Average.

b Hours reported for 34 employees only.

c Hours reported for 8 employees only.

d Irregular.

e Hours reported for 38 employees only.

f Hours reported for 8 employees only.

g Hours reported for 26 employees only.

h Hours reported for 1 employee only.

i Pensioners.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
		1	1		1						\$1.42½	1
											2.68½	2
	3	2									1.99	3
	3	7	2	1							2.30	4
				3							1.21½	5
											2.36½	6
6	10	5	8	5	1	1					1.82	7
		1	1	1	2	2					2.38½	8
					1	1					2.63	9
					1	1					2.58½	10
	3			2	2						1.97½	11
		1	1	1							1.92	12
	1		1		3						1.43½	13
	3	2	2	3	5	2		1			2.06½	14
			1								2.06	15
		8	5	8	14	4		1			2.31	16
		1									1.00	17
1											.65½	18
1											.88½	19
2											.77	20
		10	1								1.09	21
18	3										.78	22
18	13	1									.88½	23
				1							2.30	24
1				1							.69	25
											2.00	26
4	2	3									1.04½	27
	1	1									1.00	28
1	1										1.13½	29
1	9	4									1.25½	30
1											.96	31
							1				3.50	32
8	13	7	1				1				1.24½	33
					1						2.63	34
			1								1.91½	35
2	2	3	1			1					1.65	36
3	2										1.01½	37
5	4	4	1			1					1.46	38
11		2									1.53½	39
k 2	1										k. 79½	40
2											.77	41
	1										1.00	42
m 5	n 30	1	1								o. 66½	43
11											1.57½	44
m 6	p 29	6									o. 73½	45

j Hours reported for 2 employees only.

k Including 1 pensioner.

l Hours reported for 36 employees only.

m Boys.

n Including 13 boys.

o See notes to details.

p Including 2 pensioners.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Laborers, general (concluded)	3	M.	Norwegian	6	60	60	60
2		4	M.	Polish	6	59	72	62.3
3		2	M.	Porto Rican	6	60	60	60
4		79	M.	Portuguese	f 6	58	70	59.6
5		2	M.	S. Sea Islander	6	59	59	59
6		2	M.	Spanish	6	60	60	60
7		1	M.	West Indian negro.	6	60	60	60
8	Total	181			f 6	58	72	60
9	Laborers, mill	6	M.	American	6	69	72	71
10		181	M.	Chinese	6	59	72	71.4
11		1	M.	German	6	59	59	59
12		19	M.	Hawaiian	6	59	72	71.2
13		1	F.	Hawaiian	6	72	72	72
14		1	M.	Part-Hawaiian	6	72	72	72
15		2,229	M.	Japanese	k 6	59	78	71.9
16		114	F.	Japanese	6	66	72	71.8
17		19	M.	Korean	6	66	72	71.7
18		64	M.	Porto Rican	6	59	72	71.6
19		3	F.	Porto Rican	6	72	72	72
20		25	M.	Portuguese	6	66	72	71.6
21		10	F.	Portuguese	6	72	72	72
22	Total	2,673			k 6	59	78	71.8
23	Laborers, pump	2	M.	Chinese	6	59.5	59.5	59.5
24		22	M.	Japanese	* 6.3	59.5	84	67.9
25		1	M.	Portuguese	6	59.5	59.5	59.5
26	Total	25	M.		* 6.3	59.5	84	66.9
27	Laborers, railroad	4	M.	Hawaiian	6	59	59	59
28		310	M.	Japanese	6	57	72	61
29		15	M.	Porto Rican	6	59	60	59.7
30		27	M.	Portuguese	6	59	62	59.4
31	Total	356	M.		6	57	72	60.8
32	Laborers, road	26	M.	Hawaiian	6	62	62	62
33	Laborers, steam plow	1	M.	American	6	59	59	59
34		5	M.	Hawaiian	6	59	59	59
35		69	M.	Japanese	6	57	60	59.5
36		2	M.	Korean	6	59.5	59.5	59.5
37		2	M.	Porto Rican	6	59	59	59
38		15	M.	Portuguese	6	59	60	59.3
39	Total	94	M.		6	57	60	59.4
40	Land clearers	12	M.	French	6	(t)	(t)	(t)
41		54	M.	Japanese	6	* 59.5	* 59.5	* 59.5
42		15	M.	Korean	6	57	57	57

a Hours reported for 1 employee only.

b Boys.

c Pensioners.

d See notes to details.

e Including 1 boy.

f 1 employee works 7 days per week.

g Including 18 boys and 1 pensioner.

h Including 2 boys and 4 old men.

i Hours reported for 174 employees only.

j Including 2 boys.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
b 1	c 2										d \$0.64	1
	4										.86	2
b 1	1										e .55	3
o 20	h 49	10									d .73	4
	2										.69	5
	2										.77	6
	1										.77	7
d 33	d 126	19	e 3								d .73	8
	b 2	3	1								j 1.12	9
	160	20	1								.81	10
		1									1.00	11
	18	1									.79	12
	1										.50	13
	1										.84	14
	12,081	108	7								m .78	15
b 1	a 41										o .48	16
67	p 19										p .73	17
	q 62	2									q .79	18
1	2										.51	19
b 1	e 18	6									j .84	20
3	7										.49	21
f 73	e 2,412	141	9								r .77	22
	2										.96	23
	21	1									.91	24
	1										.96	25
	24	1									.92	26
	4										.79	27
	267	42	1								.85	28
b 1	14										s .81	29
	24	3									.87	30
b 1	309	45	1								e .85	31
	26										.84	32
	# 1										b .75	33
	1	4									1.01	34
	55	14									.83	35
	2										.69	36
	2										.77	37
	.13	2									.89	38
	e 74	20									e .84	39
	u 12										u 1.00	40
	11	6									w .85	41
	15										.73	42

k 64 employees work 6.5 days per week.

l Including 48 contract workers.

m Wages are reported for 2,197 employees only. See notes to details.

n Including 4 contract workers.

o Wages reported for 108 employees only. See note u.

p 12 employees receive also salmon at midday.

q 2 employees receive also bonus of 50 cents for each full week worked.

r Wages reported for 2,635 employees only. See notes to details.

s Average.

t Irregular.

u Contract workers.

v Hours reported for 17 employees only.

w Wages reported for 17 employees only.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Land clearers (concluded)	15	M.	Porto Rican	6	(a)	(a)	(a)
2		116	M.	Portuguese	6	59	59	59
3		1	M.	Spanish	6	62.5	62.5	62.5
4	Total	213	M.		6	57	62.5	58.9
5	Land preparers	125	M.	Japanese	6	59	59	59.6
6	Lime burners	4	M.	Portuguese	6	72	72	72
7	Machinists	15	M.	American	66.1	48	70	58.8
8		2	M.	English	66.5	60	70	65
9		1	M.	German	6	60	60	60
10		2	M.	Hawaiian	6	48	59	53.5
11		2	M.	Part-Hawaiian	6	59	62.5	60.8
12		1	M.	Japanese	6	59.5	59.5	59.5
13		1	M.	Polish	6	48	48	48
14		1	M.	Portuguese	6	59	59	59
15		1	M.	Scotch	6	59.5	59.5	59.5
16	Total	26	M.		66.1	48	70	58.7
17	Machinists' helpers	4	M.	American	6	59	59.5	59.1
18		1	M.	Canadian	6	59	59	59
19		1	M.	Chinese	6	60	60	60
20		1	M.	German	6	59	59	59
21		4	M.	Hawaiian	6	48	72	59.6
22		15	M.	Japanese	6	48	72	58.9
23		1	M.	Norwegian	6	59	59	59
24		11	M.	Portuguese	6	48	72	59.4
25	Total	38	M.		6	48	72	59.2
26	Masons	2	M.	American	6	60	60	60
27		4	M.	German	6	59	59	59
28		1	M.	Japanese	6	59	59	59
29		18	M.	Portuguese	6	58	62	59.3
30	Total	25	M.		6	58	62	59.3
31	Masons' helpers	1	M.	German	6	59	59	59
32		16	M.	Japanese	6	59	60	59.3
33		1	M.	Norwegian	6	59	59	59
34		8	M.	Portuguese	6	59	62	59.5
35	Total	26	M.		6	59	62	59.3
36	Nurses, day nursery	3	F.	Japanese	6	59	59	59
37	Nurses, hospital	4	F.	American	7	70	70	70
38		1	F.	German	7	70	70	70
39		24	M.	Japanese	7	70	84	75
40		4	F.	Japanese	7	70	84	80.5
41		1	F.	Scotch	7	70	70	70
42	Total	34			7	70	84	74.7

a Irregular.

b Contract workers.

c Hours reported for 149 employees only.

d Including 15 contract workers.

e Including 12 contract workers.

f Wages reported for 175 employees only. See notes to details.

g Hours reported for 100 employees only.

h Wages reported for 100 employees only, not including 25 who receive \$35 per acre.

i Average.

j 1 employee receives also board, valued at \$24 per month.

k 1 employee receives also board, valued at \$20 per month, and 1 receives also board, valued at \$24 per month.

l 1 employee receives also board, valued at \$20 per month.

m See notes to details.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
	b15										b \$0.85	1
	116										.62	2
	1										.81	3
	d158	e18									f.70	4
	100										h.67	5
	2		2								1.23	6
			1	1	1	1	f2	k4	i2	j8	m3.92	7
							1				3.90	8
				1							2.00	9
		1	1								1.57	10
				1							2.80	11
			1				1				3.50	12
				1							1.54	13
					1						2.30	14
									1		4.75	15
		1	3	4	1	2	f4	k4	i4	j8	m3.44	16
	1	n3									n1.13	17
	o1										o.57	18
		1									1.00	19
	o1										o.84	20
	2	1	1								1.06	21
	4	7	4	4							1.19	22
			1								1.72	23
	o2	3	2	4							p1.02	24
	o2	p12	n14	10							m1.11	25
			1			1	2			2	7.33	26
					1						3.05	27
			7	5	1	3	2				2.25	28
											1.74	29
		7	6	2	3	3	2			2	2.42	30
	1										.84	31
	14	1	1								.86	32
	o1										o.67	33
	2	3	3								1.21	34
	n18	4	4								n.95	35
	3										.55	36
	#1	1			2						t1.56	37
				1							1.97	38
	2	v16	w6								m.79	39
	3	1									.45	40
			1								1.31	41
	t6	v18	w7	1	2						m.89	42

n Including 1 boy.

o Boys.

p Including 2 boys.

q Hours reported for 16 employees only.

r Hours reported for 23 employees only.

s Girl.

t Including 1 girl.

u Hours reported for 20 employees only.

v 2 employees receive also board, valued at \$10 per month.

w 1 employee receives also board, valued at \$10 per month.

x Hours reported for 30 employees only.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Office boy	1	M.	Japanese	6	60	60	60
2	Oilers, car	1	M.	Chinese	6	59	59	59
3		1	M.	German	6	65	65	65
4		5	M.	Hawaiian	6	59	72	64.4
5		7	M.	Japanese	6	59	72	61.1
6		5	M.	Portuguese	6	59	65	60.5
7	Total	19	M.		6	59	72	61.9
8	Oilers, mill	6	M.	Chinese	6	69	72	71.5
9		1	M.	Hawaiian	6	72	72	72
10		73	M.	Japanese	6	58	72	70.2
11		2	M.	Porto Rican	6	72	72	72
12		6	M.	Portuguese	6	62.5	72	70.1
13	Total	88	M.		6	58	72	70.4
14	Oilers, pump	17	M.	Chinese	6	60	72	64.9
15		1	M.	German	6	72	72	72
16		1	M.	Hawaiian	6	69	69	69
17		1	M.	Part-Hawaiian	7	84	84	84
18		52	M.	Japanese	66.5	60	84	76.1
19		4	M.	Portuguese	66.3	72	84	75
20	Total	76	M.		66.4	60	84	73.4
21	Overseers	76	M.	American	6	57	62.5	59.5
22		2	M.	Australian	6	59	59	59
23		3	M.	Austrian	6	59	60	59.3
24		3	M.	Canadian	6	59.5	59.5	59.5
25		11	M.	Chinese	6	59	62.5	59.7
26		4	M.	Danish	6	59	60	59.4
27		11	M.	English	6	59	60	59.6
28		2	M.	French	6	59	60	59.5
29		46	M.	German	6	59	71	61.2
30		2	M.	Greek	6	59	59	59
31		1	M.	Guam Islander	6	59	59	59
32		76	M.	Hawaiian	6	57	72	59.8
33		12	M.	Part-Hawaiian	6	59	62.5	60.8
34		1	M.	Irish	6	59	59	59
35		1	M.	Italian	6	62.5	62.5	62.5
36		64	M.	Japanese	6	57	72	59.7
37		2	M.	Korean	6	59	60	59.5
38		14	M.	Norwegian	6	59	62	59.5
39		3	M.	Polish	6	59	59	59
40		6	M.	Porto Rican	6	59	60	59.2
41		197	M.	Portuguese	6	54	72	59.4
42		3	M.	Russian	6	59	59	59
43		38	M.	Scotch	6	58	60	59.2
44		4	M.	Swedish	6	59.5	60	59.9
45		1	M.	Swiss	6	59	59	59
46	Total	583	M.		6	54	72	59.6
47	Overseers, assistant	7	M.	American	6	60	60	60
48		9	M.	Chinese	6	59	60	59.7
49		12	M.	Hawaiian	6	60	60	60
50		34	M.	Japanese	6	59	72	60.1
51		2	M.	Korean	6	59	59	59
52		1	M.	Porto Rican	6	60	60	60
53		46	M.	Portuguese	6	59	60	59.8
54	Total	111	M.		6	59	72	59.9
55	Overseers, head	20	M.	American	6	59	62.5	59.8
56		3	M.	Canadian	6	57	62.5	58.5
57		3	M.	English	6	59	62.5	60.2
58		2	M.	French	6	59	59	59
59		10	M.	German	6	59	71	63.4

a Boy.

b Average.

c Hours reported for 59 employees only.

d Including 1 boy.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
1											\$0.69	1
1											.77	2
3		1									1.15	3
7		2									.85	4
4		1									.78	5
											.87	6
16		4									.84	7
5		1									.88	8
1											.84	9
66		7									.82	10
1		1									.88	11
4		2									.94	12
77		11									.83	13
7		9	1								1.06	14
		1									1.00	15
1											.90	16
a1											a.59	17
38		14									.88	18
a1		3									d.90	19
f48		27	1								f.92	20
		2	20	30	7	5	6		4	2	2.60	21
				1	1						2.58	22
		1		1	1						2.04	23
						1	1			1	4.09	24
1	8	2									1.20	25
		3		1							2.01	26
		2		2	1	5	1				f2.75	27
			2		7	7	4			4	2.78	28
		2	7	15							2.84	29
											1.29	30
				1							2.11	31
		35	27	11	2				1		1.60	32
		3	5	1	1	1	1				2.01	33
				1							2.22	34
											1.53	35
8	43	12	1								1.23	36
1	1										1.15	37
	2	10			1		1				h1.94	38
	3										1.16	39
	3	2	1								1.48	40
2	74	87	26	6	2						1.65	41
	2	1									1.34	42
		1	23	4	4	4	1	1			2.76	43
		2		2							2.30	44
			1								2.30	45
12	181	f182	116	35	25	18	1	6	7	f1.94		46
											2.24	47
		1	3	2							1.21	48
		7									1.43	49
		7	1								1.09	50
5	28	4									1.03	51
	2										1.53	52
		1									1.41	53
		16	1	1								
		28										
5	73	25	5	3							1.34	54
						4	2		12	5.56		55
							1		2	5.64		56
									3	6.63		57
									1	5.65		58
							1		1	6.80		59

* Hours reported for 74 employees only.

f See notes to details.

a1 employee receives also board, valued at \$20 per month.

h2 employees receive also board, valued at \$20 per month.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Mar- ginal num- ber	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Avg. age.
1	Overseers, head (concluded).....	1	M.	Part-Hawaiian	6	62	62	62
2		1	M.	Italian.....	6	60	60	60
3		3	M.	Norwegian.....	6	59	59	59
4		1	M.	Russian.....	6	60	60	60
5		16	M.	Scotch.....	6	58	60	59.5
6	Total	60	M.		6	57	71	60.1
7	Overseer, ranch	1	M.	American	6	59	59	59
8	Overseers, steam plow.....	1	M.	Danish	6	62	62	62
9		1	M.	German	6	59	59	59
10		1	M.	Japanese	6	60	60	60
11	Total	3	M.		6	59	62	60.5
12	Overseer, tunnel	1	M.	American	6	60	60	60
13	Painters	1	M.	German	6	62.5	62.5	62.5
14		12	M.	Hawaiian	6	59	62.5	61.5
15		8	M.	Japanese	6	59	60	59.5
16		13	M.	Portuguese	6	60	62	61.8
17	Total	34	M.		6	59	62.5	60.8
18	Parasite tender.....	1	M.	Japanese	6	59.5	59.5	59.5
19	Pipe fitters	1	M.	German	6	72	72	72
20		2	M.	Japanese	6	60	72	66
21	Total	3	M.		6	60	72	68
22	Pipe fitter and plumber.....	1	M.	Hawaiian	6	60	60	60
23	Pipe fitters' helper	1	M.	Japanese	6	72	72	72
24	Policemen.....	3	M.	American	7	70	84	79.3
25		3	M.	German	b 6.3	60	84	71.7
26		6	M.	Hawaiian	b 6.8	c 18	84	68.3
27		1	M.	Japanese	7	84	84	84
28		1	M.	Norwegian	7	(e)	(e)	(e)
29		1	M.	Portuguese	7	84	84	84
30	Total	15	M.		b 6.8	f 18	f 84	f 73.6
31	Pump men	4	M.	Japanese	7	84	84	84
32	Ranchmen	18	M.	Hawaiian	7	70	70	70
33	Repair men, pump.....	2	M.	Japanese	6	72	72	72
34	Reservoir men	1	M.	American	7	84	84	84
35		3	M.	Chinese	b 6.3	57	70	62.2
36		1	M.	German	7	(e)	(e)	(e)
37		1	M.	Hawaiian	7	70	70	70
38		32	M.	Japanese	b 6.3	59	72	62.5
39		4	M.	Portuguese	7	70	70	70
40	Total	42	M.		b 6.4	67	84	63.9
41	Riggers.....	2	M.	Japanese	6	59	59	59
42	School-teachers	2	M.	Japanese	5	(J)	(J)	(J)
43	Shaft diggers.....	45	M.	Japanese	k 7	k 84	k 84	k 84
44		3	M.	Portuguese	6	60	60	60
45	Total	48	M.		n 6.8	o 60	o 84	o 79.5

a 1 employee receives also board, valued at \$20 per month.

b Average.

c 1 employee works only 3 hours per day, 6 days per week.

d 1 employee receives also additional salary from the government.

e Irregular.

f Hours reported for 14 employees only.

g Also board, valued at \$6 per month.

h 1 employee receives also bonus of \$2 per month.

i Hours reported for 41 employees only.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Classified wages per day.												Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.			
									1			\$4.79	1
									1			5.75	2
									3			6.00	3
									1			5.75	4
						1	a 2		1	12		a 6.18	5
						5	a 6		6	43		a 6.01	6
										1		9.58	7
									1			4.79	8
								1				4.41	9
			1									1.75	10
			1					1	1			3.65	11
			1									1.72	12
		1										1.25	13
	3	5	1	1		2						1.51	14
	4	4										.92	15
	10	2			1							1.02	16
	17	12	1	1	1	2						1.18	17
	1											.70	18
			1	1								1.53	19
		1	1									1.42	20
		1	2									1.46	21
					1							2.87	22
	1											.77	23
		1		1	2		1					3.18	24
						1						2.13	25
	d 2			3	1							d 1.83	26
	1											.98	27
					1							2.68	28
	1											.98	29
	d 4	1		4	4	1	1					d 2.10	30
	4											.98	31
	g 17	g 1	1									g .68	32
					1							1.25	33
												2.96	34
		3										1.00	35
		1										1.15	36
		1										1.15	37
	h 19	13										h .86	38
	1	2			1							1.52	39
	h 20	20			2							h 1.00	40
		2										1.17	41
	1		1									1.24	42
	i 13											m .75	43
	1	2										.97	44
	p 14	2										q .79	45

f Not reported.

h Days and hours reported for 13 employees only.

i Contract workers.

m Wages reported for 13 employees only. See note 1.

n Average for 16 employees only.

o Hours reported for 16 employees only.

p Including 13 contract workers.

q Wages reported for 16 employees only. See note 1.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Sheep herders	6	M.	Japanese	a 6.7	60	84	69
2	Stablemen	1	M.	American	7	70	70	70
3		1	M.	American negro	7	70	70	70
4		5	M.	Chinese	7	70	70	70
5		14	M.	Hawaiian	a 6.7	62	77	70.4
6		176	M.	Japanese	a 6.8	f 59	f 84	f 69.5
7		3	M.	Korean	7	65	65	65
8		2	M.	Porto Rican	7	70	70	70
9		20	M.	Portuguese	a 6.7	g 59	g 72	g 67.3
10	Total	222	M.		a 6.8	159	184	169.3
11	Steerers, steam plow	1	M.	American	6	59	59	59
12		1	M.	German	6	59	59	59
13		5	M.	Hawaiian	6	59	62	59.6
14		40	M.	Japanese	6	57	66	59.9
15		4	M.	Porto Rican	6	60	62	61.5
16		10	M.	Portuguese	6	59	60	59.4
17	Total	61	M.		6	59	66	59.9
18	Stenographers	1	M.	American	6	59.5	59.6	59.5
19		2	F.	American	6	59	60	59.5
20	Total	3			6	59	60	59.5
21	Stock herders	1	M.	American negro	7	70	70	70
22		1	F.	American negro	7	70	70	70
23		1	M.	German	7	70	70	70
24		23	M.	Hawaiian	7	h 70	h 84	h 75.9
25		11	M.	Japanese	7	i 70	i 84	i 72.8
26		1	F.	Japanese	7	70	70	70
27		1	M.	Porto Rican	7	77	77	77
28		9	M.	Portuguese	7	m 70	m 70	m 70
29		1	M.	Welsh	6	59	59	59
30	Total	49			n 7	o 59	o 84	o 72.5
31	Stockmen	1	M.	American	7	70	70	70
32		1	M.	German	7	70	70	70
33		1	M.	Hawaiian	7	70	70	70
34	Total	3	M.		7	70	70	70
35	Storekeepers	18	M.	American	6	59	72	69.1
36		2	M.	Australian	6	72	72	72
37		4	M.	Canadian	6	72	72	72
38		3	M.	English	6	59	72	67.7
39		1	M.	German	6	72	72	72
40		1	M.	Part-Hawaiian	6	60	60	60
41		1	M.	Japanese	6	60	60	60
42		1	M.	Norwegian	6	54	54	54
43		3	M.	Scotch	6	72	72	72
44	Total	34	M.		6	54	72	68.8
45	Storekeepers, assistant	2	M.	Scotch	6	72	72	72
46	Sugar boilers	17	M.	American	6	62	72	71.4
47		1	M.	Austrian	6	72	72	72
48		1	M.	Canadian	6	72	72	72

a Average.

b Boys.

c Including 1 boy.

d 1 employee receives also board, valued at \$18 per month.

e See notes to details.

f Hours reported for 159 employees only.

g Hours reported for 18 employees only.

h Including 6 boys.

i Hours reported for 203 employees only.

j Including 3 employees who receive also bonus of 50 cents for each full week worked.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
	5	1									\$0.78	1
					1						2.79	2
	1										.96	3
	4										.96	4
b 1	141	d 5									e .84	5
	3	35									.84	6
	2										.71	7
	h 11	7	2								.85	8
											h .93	9
b 1	e 170	d 48	2		1						e .85	10
		1									1.25	11
		1									1.00	12
	3	2									.95	13
	27	13									.91	14
	f 4										f .73	15
	6	4									.90	16
	f 40	21									f .91	17
							1				3.83	18
				1		1					2.77	19
				1		1	1				3.13	20
			1								1.64	21
	1										.66	22
	1										.85	23
	12	10	1								1.01	24
	11										.80	25
1											.45	26
	b 1										b .57	27
b 2	e 5	1	1								e .82	28
				1							2.11	29
p 3	p 31	11	3	1							e .98	30
					1	1					3.29	31
			1								2.63	32
											1.97	33
			1		1	1					2.63	34
		2	1	3	2	3			2	q 5	q 4.16	35
									2	2	6.61	36
									2	2	5.22	37
									r 1	2	q 5.43	38
										1	7.67	39
										1	5.75	40
		1									1.34	41
							1				3.83	42
					1		1			1	3.96	43
		1	2	1	4	2	5		q 5	q 14	e 4.58	44
					2						2.68	45
						1	1		4	q 11	q 5.41	46
										1	6.71	47
										1	5.75	48

h Hours reported for 20 employees only.

i Hours reported for 5 employees only.

m Hours reported for 4 employees only.

n 1 employee works 6 days per week.

o Hours reported for 35 employees only.

p Including 2 boys.

q 1 employee receives also share of net profits.

r Also share of net profits.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Sugar boilers (concluded).....	4	M.	Chinese	6	72	72	72
2		2	M.	Danish	6	71	72	71.5
3		3	M.	English	6	69	72	71
4		1	M.	French	6	72	72	72
5		10	M.	German	6	71	72	71.9
6		4	M.	Part-Hawaiian ..	6	72	72	72
7		3	M.	Irish	6	72	72	72
8		1	M.	Japanese	6	60	60	60
9		2	M.	Portuguese	6	72	72	72
10		1	M.	Scotch	6	72	72	72
11		1	M.	Welsh	6	72	72	72
12	Total	51	M.		6	60	72	71.5
13	Sugar boilers, assistant.....	4	M.	American	6	72	72	72
14		13	M.	Chinese	6	72	72	72
15		1	M.	German	6	72	72	72
16		1	M.	Hawaiian	6	72	72	72
17		2	M.	Part-Hawaiian ..	6	72	72	72
18		26	M.	Japanese	6	72	72	72
19		1	M.	Polish	6	72	72	72
20		5	M.	Portuguese	6	72	72	72
21	Total	53	M.		6	72	72	72
22	Surveyors	9	M.	American	6	59	62	60.1
23		1	M.	Danish	6	59	59	59
24		1	M.	German	6	60	60	60
25		1	M.	Hawaiian	6	60	60	60
26		1	M.	Japanese	6	59.5	59.5	59.5
27		1	M.	Portuguese	6	59.5	59.5	59.5
28	Total	14	M.		6	59	62	59.9
29	Surveyor, assistant.....	1	M.	Japanese	6	60	60	60
30	Surveyors' helpers	13	M.	Hawaiian	6	60	60	60
31		6	M.	Part-Hawaiian ..	6	59	62	61.5
32		13	M.	Japanese	6	59	60	59.5
33		6	M.	Portuguese	6	59.5	60	59.9
34	Total	38	M.		6	59	62	60
35	Swampers	4	M.	Japanese	6	59	59	59
36	Teachers, kindergarten	2	F.	American	5	30	30	30
37	Teamsters and cultivators	14	M.	Chinese	6	59	60	59.6
38		378	M.	Hawaiian	6	57	66	60.1
39		1	M.	Irish	6	59.5	59.5	59.5
40		1,014	M.	Japanese	6	58	66	59.4
41		8	M.	Korean	6	59	59	59
42		15	M.	Polish	6	59	60	59.7
43		47	M.	Porto Rican	6	58.5	62	59.5
44		537	M.	Portuguese	6	57	62.5	59.6
45		4	M.	S. Sea Islander..	6	60	60	60
46	Total	2,018	M.		6	57	66	59.6
47	Teamsters' and cultivators' helpers....	10	M.	Hawaiian	6	59	59	59
48		42	M.	Portuguese	6	59	59.5	59.3
49	Total	52	M.		6	59	59.5	59.3
50	Timekeepers	16	M.	American	6	58.5	72	61.4
51		1	M.	Austrian	6	60	60	60
52		3	M.	English	6	60	60	60
53		4	M.	German	6	59	60	59.5

a1 employee receives also share of net profits.

b Including 1 employee who receives also board, valued at \$20 per m.

c Boys.

d Including 8 boys.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
			1	2	1						\$2.30	1
										2	6.55	2
									1	2	5.43	3
									1		4.98	4
							3		1	6	5.76	5
							1			3	5.12	6
									1	-2	6.45	7
			1								1.91	8
									1	1	6.23	9
									1		4.98	10
										1	5.36	11
			2	2	1	1	5		10	30	5.30	12
							1		2	1	4.74	13
	4	4	3	1	1						1.39	14
									1		4.79	15
			1								1.91	16
			2								1.84	17
	17	3	4	2							1.14	18
						1					3.26	19
		1	2	1		1					2.18	20
	21	8	12	4	1	2	1		3	1	1.72	21
							1		1	b7	67.58	22
					1						2.87	23
			1								2.87	24
				1							1.53	25
									1		2.30	26
											4.79	27
			1	1	2		1		2	b7	65.90	28
			1								1.91	29
	11	2									.92	30
	1	5									.95	31
	8	4	1								.93	32
	2	4									.97	33
	22	15	1								.94	34
	4										.77	35
			1		1						2.39	36
	6	8									.94	37
c1	d294	83									e.86	38
		1									1.00	39
	f942	72									f.79	40
	8										.72	41
	15										.88	42
	g47										g.81	43
e2	h332	202	1								e.92	44
	4										.80	45
e3	e1,648	366	1								e.84	46
	e10										e.62	47
e7	e35										e.55	48
e7	e45										e.56	49
					4	6	2	3	1		3.51	50
					1						2.87	51
						1	2				3.70	52
				1	2				1		3.16	53

e See notes to details.

f Including 2 boys.

g 1 employee receives also bonus of \$2 for every 26 days worked.

h Including 26 boys.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Timekeepers (concluded).....	3	M.	Hawaiian	6	59	59	59
2		1	M.	Part-Hawaiian ..	6	60	60	60
3		1	M.	Norwegian	6	54	54	54
4		1	M.	Portuguese	6	60	60	60
5		8	M.	Scotch.....	6	59	60	59.1
6	Total	38	M.		6	54	72	60.1
7	Trash balers.....	30	M.	Japanese	6	59	59	59
8	Warehousemen.....	1	M.	American	6	59.5	59.5	59.5
9		1	M.	English.....	6	59	59	59
10		1	M.	German.....	6	59	59	59
11		1	M.	Hawaiian	6	59	59	59
12		22	M.	Japanese	6	59	60	59.2
13		1	M.	Porto Rican	6	60	60	60
14		4	M.	Portuguese	6	59	72	65.6
15		1	M.	Scotch.....	6	59	59	59
16	Total	32	M.		6	59	72	60
17	Watchmen	2	M.	American	7	84	84	84
18		1	M.	Chinese	7	84	84	84
19		2	M.	English.....	7	84	84	84
20		5	M.	German.....	7	84	84	84
21		8	M.	Hawaiian	7	84	84	84
22		24	M.	Japanese	^c 7	^d 84	^d 84	^d 84
23		2	M.	Norwegian	7	84	84	84
24		1	M.	Porto Rican	7	84	84	84
25		20	M.	Portuguese	7	84	84	84
26	Total	65	M.		^c 7	^e 84	^e 84	^e 84
27	Water tenders, mill	4	M.	Chinese.....	6	71	72	71.8
28		1	M.	Hawaiian	6	72	72	72
29		42	M.	Japanese	6	69	72	71.8
30		3	M.	Portuguese	6	72	72	72
31	Total	50	M.		6	69	72	71.8
32	Water tenders, pump.....	4	M.	Japanese	7	84	84	84
33	Water tenders, steam plow.....	4	M.	Hawaiian	6	59	60	59.5
34		15	M.	Japanese	6	59	66	60.2
35		9	M.	Portuguese	6	57	62.5	60.2
36	Total	28	M.		6	57	66	60.1
37	Well borers.....	1	M.	American	6	60	60	60
38		4	M.	Japanese	6	59	59	59
39		1	M.	Norwegian	6	59	59	59
40		4	M.	Portuguese	6	60	60	60
41	Total	10	M.		6	59	60	59.5
42	Wharf hands	1	M.	Chinese.....	6	60	60	60
43		50	M.	Hawaiian	6	^f 59	^f 60	^f 59.6
44		107	M.	Japanese	6	^g 59	^g 60	^g 59.4
45		4	M.	Porto Rican	6	59	59	59
46		18	M.	Portuguese	6	^h 59	^h 60	^h 59.3
47	Total	180	M.		6	59	60	59.4
48	Wharfingers.....	1	M.	American	6	59	59	59
49		1	M.	Canadian.....	6	59	59	59
50		2	M.	English.....	6	59	60	59.5
51		4	M.	German.....	6	ⁱ 59	ⁱ 62.5	ⁱ 60.2
52		2	M.	Hawaiian	6	59	72	65.5

^a 1 employee receives also board, valued at \$20 per month.^b Contract workers.^c 1 employee works Sundays only.^d Hours reported for 23 employees only.^e Hours reported for 64 employees only.^f Hours reported for 27 employees only.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
			a 2	1							a \$1.85	1
				1		1					3.06	2
					1						2.49	3
				2	2	1	3				2.87	4
											3.15	5
			a 2	5	10	9	7	3	2		a 3.21	6
			b 30								b 1.50	7
				1			1				3.83	8
											2.30	9
			1								1.53	10
		1									1.00	11
	20	2									.86	12
		1									1.00	13
	1	1	2								1.44	14
							1				3.83	15
	21	5	3	1			2				1.20	16
		2									1.24	17
	1										.77	18
		1	1								1.48	19
	2	a 2	1								a 1.25	20
	4	4									.93	21
	15	9									.91	22
		1	1								1.40	23
	6	14									.82	24
											.99	25
	29	a 33	3								a 1.00	26
	2	2									.95	27
	1										.88	28
	28	14									.93	29
	1	1	1								1.28	30
	32	17	1								.95	31
	2	2									1.01	32
	1	3									.99	33
	11	4									.92	34
	6	3									.96	35
	18	10									.95	36
							1				3.50	37
		4				1					1.08	38
	2	2									2.50	39
											.88	40
	2	6			1		1				1.39	41
		1									1.00	42
	14	36									.99	43
	96	10	1								.84	44
	4										.86	45
	17	1									.89	46
	131	48	1								.89	47
					1						2.68	48
											2.30	49
			a 1				1				a 2.87	50
			2	1	1						2.25	51
	f 1		1								f 1.32	52

a Hours reported for 106 employees only.

b Hours reported for 3 employees only.

c Hours reported for 141 employees only.

f Boy.

* Including 1 boy.

TABLE I.—OCCUPATIONS, WAGES, HOURS OF LABOR, AND
SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Marginal number.	Occupation.	Em- ploy- ees.	Sex.	Nationality.	Days per week.	Hours per week.		
						Low- est.	High- est.	Aver- age.
1	Timekeepers (concluded).....	3	M.	Hawaiian	6	59	59	59
2		1	M.	Part-Hawaiian ..	6	60	60	60
3		1	M.	Norwegian	6	54	54	54
4		1	M.	Portuguese	6	60	60	60
5		8	M.	Scotch	6	59	60	59.1
6	Total	38	M.		6	54	72	60.1
7	Trash balers.....	30	M.	Japanese	6	59	59	59
8	Warehousemen.....	1	M.	American	6	59.5	59.5	59.5
9		1	M.	English	6	59	59	59
10		1	M.	German	6	59	59	59
11		1	M.	Hawaiian	6	59	59	59
12		22	M.	Japanese	6	59	60	59.2
13		1	M.	Porto Rican	6	60	60	60
14		4	M.	Portuguese	6	59	72	65.6
15		1	M.	Scotch	6	59	59	59
16	Total	32	M.		6	59	72	60
17	Watchmen	2	M.	American	7	84	84	84
18		1	M.	Chinese	7	84	84	84
19		2	M.	English	7	84	84	84
20		5	M.	German	7	84	84	84
21		8	M.	Hawaiian	7	84	84	84
22		24	M.	Japanese	c 7	d84	d84	d84
23		2	M.	Norwegian	7	84	84	84
24		1	M.	Porto Rican	7	84	84	84
25		20	M.	Portuguese	7	84	84	84
26	Total	65	M.		c 7	e84	e84	e84
27	Water tenders, mill	4	M.	Chinese	6	71	72	71.8
28		1	M.	Hawaiian	6	72	72	72
29		42	M.	Japanese	6	69	72	71.8
30		3	M.	Portuguese	6	72	72	72
31	Total	50	M.		6	69	72	71.8
32	Water tenders, pump.....	4	M.	Japanese	7	84	84	84
33	Water tenders, steam plow.....	4	M.	Hawaiian	6	59	60	59.5
34		15	M.	Japanese	6	59	66	60.2
35		9	M.	Portuguese	6	57	62.5	60.2
36	Total	28	M.		6	57	66	60.1
37	Well borers.....	1	M.	American	6	60	60	60
38		4	M.	Japanese	6	59	59	59
39		1	M.	Norwegian	6	59	59	59
40		4	M.	Portuguese	6	60	60	60
41	Total	10	M.		6	59	60	59.5
42	Wharf hands	1	M.	Chinese	6	60	60	60
43		50	M.	Hawaiian	6	f59	f60	f59.6
44		107	M.	Japanese	6	g59	g60	g59.4
45		4	M.	Porto Rican	6	59	59	59
46		18	M.	Portuguese	6	h59	h60	h59.3
47	Total	180	M.		6	i59	i60	i59.4
48	Wharfingers.....	1	M.	American	6	59	59	59
49		1	M.	Canadian	6	59	59	59
50		2	M.	English	6	59	60	59.5
51		4	M.	German	6	A59	A62.5	A60.2
52		2	M.	Hawaiian	6	59	72	65.5

a 1 employee receives also board, valued at \$20 per month.

b Contract workers.

c 1 employee works Sundays only.

d Hours reported for 23 employees only.

e Hours reported for 64 employees only.

f Hours reported for 27 employees only.

NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1905—Concluded.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Concluded.

[Employees on sugar plantations generally receive free house rent and often free medical attendance.]

Classified wages per day.											Average wages per day.	Marginal number.
Under \$0.50.	\$0.50 or under \$1.00.	\$1.00 or under \$1.50.	\$1.50 or under \$2.00.	\$2.00 or under \$2.50.	\$2.50 or under \$3.00.	\$3.00 or under \$3.50.	\$3.50 or under \$4.00.	\$4.00 or under \$4.50.	\$4.50 or under \$5.00.	\$5.00 or over.		
			1								\$2.30	1
			1			1	2				1.54	2
											3.58	3
	b1		c5	3	2	1	3				d2.46	4
	2										.96	5
	11	7									.89	6
		1									1.00	7
	1										.92	8
	1										.92	9
	15	8									.90	10
		f8									f1.00	11
(g)	(g) 2	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g) .77	12
												13
	2	f8									f.86	14
	1										.84	15
	7										.74	16
	1										.60	17
	m65	1									m.71	18
	1										.98	19
	3	3									.93	20
	m78	4									m.73	21

TANNERY (1 ESTABLISHMENT).

	2										\$1.20	22
	2										1.12	23
	4										1.16	24
							1				3.50	25
			1								1.66	26
									1		5.75	27
	3										1.11	28
	2										1.04	29
	1										1.08	30
	6										1.08	31
				1							2.00	32
	1										1.33	33
	1										1.33	34
			1								1.50	35
			1								1.50	36
			2								1.50	37

b Wages reported for 2 employees only, not including 1 who receives 75 cents per cord.

c Hours reported for 3 employees only.

f Wages reported for 10 employees only. See notes to details.

g Average.

h Hours reported for 60 employees only.

m Including 2 employees who receive also board, valued at \$7 per month.

n Hours reported for 76 employees only.

TABLE II.—OCCUPATIONS, AVERAGE WAGES AND HOURS OF LABOR, AND NATIONALITY OF EMPLOYEES IN EACH INDUSTRY, 1900-1901, 1902, AND 1905.

[For explanation and discussion of this table see pages 513 and 514.]

BAKERY, CONFECTIONERY, AND RESTAURANT (2 ESTABLISHMENTS).

[Data for 1902 are for 1 establishment.]

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Bakers:										
Chinese	M.							1	56	\$1.07
Japanese	M.				1	54	\$1.72 ^d	1	56	\$1.43
Total	M.				1	54	\$1.72 ^d	2	56	\$1.25
Bakers' helpers:										
Chinese	M.							1	56	\$.50
Japanese	M.				3	54	\$1.00	1	56	\$.57
Total	M.				3	54	\$1.00	2	56	\$.53 ^d
Confectioners:										
Japanese	M.				2	54	\$.86 ^d	2	57	1.25
Cooks:										
Chinese	M.				3	(e)	\$.76 ^d	2	56	\$.85 ^d
Drivers:										
Chinese	M.							1	57	1.00
Italian	M.				1	54	\$2.30			
Japanese	M.							1	70	\$.85 ^d
Portuguese	M.				2	54	\$1.15			
Total	M.				3	54	\$1.58 ^d	2	63.5	\$1.92 ^d
House boys:										
Japanese	M.				2	54	\$.51 ^d			
Lauderer:										
Chinese	M.				1	54	\$.76 ^d			
Manager:										
American	M.							1	56	\$1.97 ^d
Packer:										
Japanese	M.							1	57	1.50
Salesmen:										
American	M.				2	54	\$1.34 ^d			
Saleswomen:										
Hawaiian	F.							2	67	\$1.90 ^d
Stenographer:										
American	F.							1	57	1.00
Walters:										
Japanese	M.				2	54	\$.86 ^d	2	70	\$.92 ^d

BREWERY (1 ESTABLISHMENT).

Bottlers:										
American	M.							5	53	\$1.30
American negro	M.							1	53	1.50
Chinese	M.				1	54	\$1.16 ^d			
Hawaiian	M.				13	54	1.16 ^d	6	53	1.21
Japanese	M.							1	53	1.25
Portuguese	M.				11	54	1.66 ^d	9 ^f	53	\$.88 ^d
Total	M.				25	54	1.38 ^d	16 ^g	53	\$1.19 ^d
Brewers, assistant:										
American	M.				1	54	3.83 ^d	2	53	3.44 ^d
Brewer, head:										
American	M.				1	54	8.62 ^d	1	53	9.58 ^d

^a Also board, valued at \$3 per week.^b Also board and lodging and washing.^c Irregular.^d 1 employee receives also board, valued at \$3 per week.^e Also board, valued at \$5 per week.^f 1 employee receives also board, valued at \$5 per week.^g Including 2 boys.

TABLE III.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

BREWERY (1 ESTABLISHMENT)—Concluded.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Brewers' helpers:										
American.....	M.							1	53	\$2.00
German.....	M.							1	53	2.00
Norwegian.....	M.							1	53	2.58½
Total.....	M.							3	53	2.19½
Clerk:										
American.....	M.							1	53	2.87½
Collector:										
American.....	M.							1	53	4.79
Engineer:										
American.....	M.				1	63	\$4.93	1	84	4.93
Engineer, assistant:										
American.....	M.				1	63	3.29	1	84	3.29
Firemen:										
Norwegian.....	M.				2	63	2.50	2	84	2.50
Foremen, bottlers:										
American.....	M.				1	54	3.83½			
German.....	M.							1	53	4.79
Ice pullers:										
American.....	M.				a 1	54	\$1.50			
Japanese.....	M.				1	54	1.75			
Portuguese.....	M.							1	84	1.75
South Sea Islander.....	M.				1	54	1.75			
Total.....	M.				b 3	54	\$1.66½	1	84	1.75
Laborers:										
German.....	M.							1	53	1.50
Hawaiian.....	M.							1	53	1.00
Part-Hawaiian.....	M.							1	53	1.50
Japanese.....	M.							1	53	1.50
Portuguese.....	M.							1	53	1.75
Total.....	M.							5	53	1.45
Miller:										
American.....	M.							1	53	2.00
Operatives:										
American.....	M.				2	54	3.00			
Hawaiian.....	M.				8	54	1.81½			
Japanese.....	M.				3	54	1.50			
Norwegian.....	M.				2	54	2.50			
Portuguese.....	M.				2	54	1.75			
Total.....	M.				17	54	1.97			
Stableman:										
Portuguese.....	M.							1	53	2.18½
Teamsters:										
American.....	M.							1	53	2.59
Part-Hawaiian.....	M.							1	53	2.07
Norwegian.....	M.							1	53	2.87½
Total.....	M.							3	53	2.51

a Boy.

b Including 1 boy.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

BUILDING (15 ESTABLISHMENTS).

[Data for 1900-1901 are for 8 establishments, for 1902 are for 9 establishments.]

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Blacksmiths:										
American.....	M.							2	53	\$1.50
Bookkeepers:										
American.....	M.				1	47	\$1.91 ^a	1	60	3.33 ^a
German.....	M.				1	47	3.83 ^a			
Total.....	M.				2	47	2.87 ^a	1	60	3.33 ^a
Bricklayers:										
American.....	M.	5	48	\$5.50				5	47	6.00
English.....	M.	2	48	6.00				1	47	6.00
Irish.....	M.	2	48	6.00						
Portuguese.....	M.							1	47	5.00
Scotch.....	M.	2	48	6.00				1	48	6.00
Total.....	M.	11	48	5.77 ^a				8	47.1	5.87 ^a
Bricklayers' helpers:										
Hawaiian.....	M.	4	48	2.50						
Part-Hawaiian.....	M.	5	48	2.50						
Portuguese.....	M.	14	48	2.14 ^a				12	47	1.30
Total.....	M.	23	48	2.28 ^a				12	47	1.30
Carpenters:										
American.....	M.	30	48	3.98 ^a	33	47.9	4.18	26	48	3.59 ^a
Danish.....	M.				1	47	4.00			
English.....	M.	1	48	4.00	1	48	4.50	2	47.5	3.00
German.....	M.	9	48	3.72	1	47	4.00	7	48	3.14 ^a
Hawaiian.....	M.	8	48	3.00	10	48	2.95	22	48	2.61 ^a
Part-Hawaiian.....	M.	6	48	2.87 ^a				15	48	2.83 ^a
Irish.....	M.	4	48	4.00				2	48	4.00
Japanese.....	M.				1	47	1.50	47	49.5	51.54 ^a
Norwegian.....	M.							3	48	3.66 ^a
Portuguese.....	M.	9	48	2.97	8	47.5	2.87 ^a	18	47.9	2.98 ^a
Samoan.....	M.							1	48	3.50
Scotch.....	M.							2	48	4.00
Swedish.....	M.							2	48	3.00
Total.....	M.	67	48	3.59 ^a	55	47.8	3.72	147	48.3	42.83 ^a
Carpenters' helpers:										
Filipino.....	M.							1	47	2.50
Hawaiian.....	M.							2	48	1.50
Part-Hawaiian.....	M.							1	48	2.50
Portuguese.....	M.				6	48	1.50	4	48	2.25
Total.....	M.				6	48	1.50	8	47.9	2.12 ^a
Carvers, stone:										
English.....	M.	1	48	7.00						
Italian.....	M.	1	48	6.00						
Total.....	M.	2	48	6.50						
Clerks:										
Hawaiian.....	M.							1	54	1.00
Japanese.....	M.							1	48	1.25
Total.....	M.							2	51	1.12 ^a
Concrete finisher:										
English.....	M.							1	48	6.00
Concrete workers:										
American.....	M.				2	48	5.00	1	48	3.06 ^a
Portuguese.....	M.							1	48	5.00
Total.....	M.				2	48	5.00	2	48	4.03 ^a

^a Hours reported for 23 employees only.^b Wages reported for 23 employees only.^c Hours reported for 123 employees only.^d Wages reported for 123 employees only.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

BUILDING (15 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Concrete workers' helpers:										
Polish.....	M.							2	48	\$2.00
Cornice maker:										
German.....	M.	1	47	\$4.00						
Drillers and blasters:										
Japanese.....	M.	5	48	1.50						
Driver:										
Part-Hawaiian.....	M.				1	48	\$1.50			
Engineers:										
American.....	M.							4	53	^a 4.72
Hawaiian.....	M.							1	53	3.50
Japanese.....	M.							9	58.8	^b 1.66 ¹
Total.....	M.							14	56.8	^c 2.67
Engineers, pile driver:										
American.....	M.							1	48	4.00
Part-Hawaiian.....	M.							1	48	4.00
Total.....	M.							2	48	4.00
Excavators:										
Japanese.....	M.	27	48	1.10						
Foremen, bricklayers:										
American.....	M.				1	48	8.00	1	47	7.50
English.....	M.	1	48	7.00						
Foremen, carpenters:										
American.....	M.	8	48	5.31 ¹	3	48	6.50	2	47.5	5.75
English.....	M.	1	48	7.00				1	47	6.00
Japanese.....	M.							4	49.5	2.43 ¹
Scotch.....	M.							1	48	5.00
Total.....	M.	9	48	5.50	3	48	6.50	8	48.5	4.03
Foreman, concrete workers:										
American.....	M.							1	48	5.00
Foremen, excavators:										
Part-Hawaiian.....	M.	1	48	2.50						
Portuguese.....	M.	1	48	2.50						
Total.....	M.	2	48	2.50						
Foremen, laborers, road:										
Hawaiian.....	M.							5	54	1.50
Foremen, painters:										
American.....	M.	2	47.5	4.00				1	48	4.00
Australian.....	M.	1	47	5.00						
Hawaiian.....	M.	1	48	4.00						
Japanese.....	M.							1	49.5	2.50
Total.....	M.	4	47.5	4.25				2	48.8	3.25
Foreman, pavers:										
American.....	M.							1	48	5.00
Foreman, pile drivers:										
American.....	M.							1	48	4.50
Foreman, plasterers:										
English.....	M.	1	48	6.00						
Foremen, plumbers:										
American.....	M.	2	47	6.00	1	47	7.50	1	48	6.00
English.....	M.				1	47	6.90			
Total.....	M.	2	47	6.00	2	47	7.20	1	48	6.00

^a 1 employee receives also board and lodging.^b 1 employee furnished also with house.^c See notes to details.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

BUILDING (15 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1903.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Foreman, stablemen:										
American	M.							1	70	\$3.00
Foremen, stone masons:										
American	M.				1	48	\$7.00			
Portuguese	M.	1	48	\$5.00						
Scotch	M.	1	48	7.00						
Total	M.	2	48	6.00	1	48	7.00			
Foreman, teamsters:										
American	M.							1	48	3.00
Foreman, tinmiths:										
Bulgarian	M.	1	47	4.00						
Ironworkers:										
American	M.				2	48	5.50			
Laborers:										
American	M.	7	48.7	1.89						
Chinese	M.							3	48	1.33
English	M.	3	48	2.00						
Hawaiian	M.	7	51.6	1.36				12	47.9	1.38
Irish	M.	6	48	2.00						
Japanese	M.	24	49.3	1.00	23	52.2	1.37	24	48.2	.88
Porto Rican	M.							1	48	1.50
Portuguese	M.	34	49.3	\$1.37	6	47.8	1.50	45	47.9	1.73
Total	M.	81	49.3	\$1.37	29	51.3	1.39	85	48	1.48
Laborers, road:										
Hawaiian	M.							89	52.4	1.11
Porto Rican	M.							13	54	1.12
Portuguese	M.							21	48.9	1.26
Total	M.							123	52	1.14
Laborers, rock crushers:										
Portuguese	M.							5	48	2.00
Manager, plumber's establish- ment:										
American	M.				1	47	5.75			
Masons:										
American	M.	15	48	4.93						
German	M.	2	48	4.25						
Japanese	M.	16	48	2.43						
Portuguese	M.	20	48	3.00	2	48	4.50	4	51	3.12
Total	M.	53	48	3.42	2	48	4.50	4	51	3.12
Masons' helpers:										
Japanese	M.	30	48	1.25						
Portuguese	M.	15	48	2.00				4	48	1.50
Total	M.	45	48	1.50				4	48	1.50
Mortar mixers:										
American	M.							2	47	3.00
Painters:										
American	M.	6	47.5	3.33	12	47.9	3.50	2	48	3.25
American negro	M.				1	47	2.50			
Belgian	M.	1	47	3.00						
English	M.							1	48	3.50
German	M.	1	47	3.00						
Hawaiian	M.	20	47.3	2.57	19	47.7	2.56	23	48	2.63
Part-Hawaiian	M.	20	47.2	2.62						
Japanese	M.							8	49.5	1.50
Norwegian	M.	1	47	3.50						
Portuguese	M.	9	47	2.72	3	48	2.75	7	48	2.78
Total	M.	58	47.2	2.72	35	47.8	2.90	41	48.3	2.49

a Including 1 boy.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

BUILDING (15 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Painters' helpers:										
Hawaiian	M.							2	48	\$1.50
Part-Hawaiian	M.							1	48	1.50
Portuguese	M.				1	48	\$1.66 $\frac{1}{2}$	1	48	1.50
Total	M.				1	48	1.66 $\frac{1}{2}$	4	48*	1.50
Paper hangers:										
American	M.							1	48	3.50
Hawaiian	M.							4	48	3.12 $\frac{1}{2}$
Part-Hawaiian	M.							1	48	3.50
Total	M.							6	48	3.25
Pavers:										
American	M.							9	48	2.00
Hawaiian	M.							4	48	2.00
Part-Hawaiian	M.							4	48	2.00
Irish	M.							1	48	2.00
Total	M.							18	48	2.00
Pile drivers:										
American	M.							3	48	2.33 $\frac{1}{2}$
Hawaiian	M.							1	48	3.00
Portuguese	M.							2	48	3.00
Russian	M.							1	48	2.50
Total	M.							7	48-	2.64 $\frac{1}{2}$
Plasterers:										
American	M.	2	48	\$5.50	2	48	6.00			
English	M.	2	48	5.00				2	48	6.00
Hawaiian	M.	1	48	6.00						
Irish	M.	4	48	5.00						
Scotch	M.	1	48	6.00						
Total	M.	10	48	5.30	2	48	6.00	2	48	6.00
Plasterers' helpers:										
Portuguese	M.	5	48	2.00						
Plumbers:										
American	M.	13	47	5.00	5	47	5.50	3	47.7	4.83 $\frac{1}{2}$
Irish	M.	3	47	5.00						
Portuguese	M.							1	47	5.50
Total	M.	16	47	5.00	5	47	5.50	4	47.5	5.00
Plumbers' apprentice:										
Portuguese	M.				a 1	47	a .66 $\frac{1}{2}$	1	47	.57 $\frac{1}{2}$
Plumbers' helpers:										
American	M.				b 3	47	b .94 $\frac{1}{2}$	1	48	1.50
Hawaiian	M.	5	47	1.20	2	47	2.50	3	47.7	1.83 $\frac{1}{2}$
Part-Hawaiian	M.	1	47	1.00				1	47	2.50
Portuguese	M.				3	47	2.00	1	48	1.25
Total	M.	6	47	1.16 $\frac{1}{2}$	b 8	47	b 1.73	6	47.7	1.79
Sheet-metal workers:										
Portuguese	M.							3	48	3.16 $\frac{1}{2}$
Sheet-metal workers' apprentices:										
Portuguese	M.							2	48	1.50
Shop boys:										
Part-Hawaiian	M.							1	48	.50
Japanese	M.							1	48	1.50
Total	M.							2	48	1.00
Teamsters:										
American	M.							9	48	2.66 $\frac{1}{2}$
American negro	M.							1	48	2.00
Danish	M.							1	48	2.00
German	M.							1	48	2.00

a Boy.

b Including 1 boy.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

BUILDING (15 ESTABLISHMENTS)—Concluded.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Teamsters (concluded):										
Hawaiian.....	M.	.....	.....	.....	.....	.....	.....	3	48	\$2.00
Japanese.....	M.	.....	.....	.....	.....	.....	.....	1	48	1.25
Portuguese.....	M.	.....	.....	.....	4	48	\$1.50	7	48	2.07
Total.....	M.	.....	.....	.....	4	48	1.50	23	48	2.35
Tinsmiths:										
American.....	M.	2	47	\$3.75	1	47	3.50	.....	.....	.....
English.....	M.	.....	.....	.....	.....	.....	.....	1	48	4.00
German.....	M.	.....	.....	.....	1	47	3.00	1	48	3.50
Hawaiian.....	M.	2	47	2.00	.....	.....	.....	.....	.....	.....
Part-Hawaiian.....	M.	1	47	3.00	.....	.....	.....	.....	.....	.....
Portuguese.....	M.	3	47	2.50	4	47	2.93½	4	47.8	3.18½
Spanish.....	M.	1	47	2.75	.....	.....	.....	.....	.....	.....
Total.....	M.	9	47	2.75	6	47	3.04	6	47.8	3.37½
Tinsmiths' helpers:										
German.....	M.	1	47	1.50	.....	.....	.....	.....	.....	.....
Hawaiian.....	M.	1	47	2.00	.....	.....	.....	2	48	1.25
Portuguese.....	M.	.....	.....	.....	4	47	1.50	2	47.5	1.37½
Total.....	M.	2	47	1.75	4	47	1.50	4	47.8	1.31½
Watchmen:										
American.....	M.	.....	.....	.....	.....	.....	.....	2	84	1.07½
Water boys:										
Portuguese.....	M.	.....	.....	.....	.....	.....	.....	2	51	.72½

CARRIAGE MAKING (2 ESTABLISHMENTS).

[Data for 1900-1901 and 1902 are for 1 establishment.]

Blacksmiths:										
American.....	M.	3	53	\$4.00	1	53	\$5.00	.....	.....	.....
German.....	M.	1	53	4.00	1	53	4.00	.....	.....	.....
Hawaiian.....	M.	.....	.....	.....	.....	.....	.....	1	53	\$2.50
Portuguese.....	M.	1	53	3.25	1	53	3.25	2	53	3.00
Swedish.....	M.	.....	.....	.....	.....	.....	.....	1	53	5.00
Total.....	M.	5	53	3.85	3	53	4.08½	4	53	3.37½
Blacksmiths' helpers:										
American.....	M.	1	53	1.50	3	53	2.00	.....	.....	.....
Hawaiian.....	M.	5	53	1.53½	a 4	53	a 1.29	.....	.....	.....
Portuguese.....	M.	3	53	1.55½	.....	.....	.....	6	53	1.44½
Swedish.....	M.	.....	.....	.....	.....	.....	.....	b 1	53	b 1.50
Total.....	M.	9	53	1.53½	a 7	53	a 1.59½	c 7	53	c 1.31
Bookkeepers:										
Hawaiian.....	M.	.....	.....	.....	1	53	1.72½	.....	.....	.....
Irish.....	M.	.....	.....	.....	.....	.....	.....	1	53	5.00
Driver:										
Hawaiian.....	M.	.....	.....	.....	.....	.....	.....	b 1	53	b 1.50
Foreman, blacksmiths:										
American.....	M.	1	53	4.79	1	53	4.79	.....	.....	.....
Foreman, painters:										
Chinese.....	M.	1	53	3.50	1	53	3.00	.....	.....	.....
Foreman, trimmers:										
German.....	M.	1	53	4.79	1	53	4.79	.....	.....	.....
Foreman, woodworkers:										
English.....	M.	1	53	4.41	.....	.....	.....	.....	.....	.....
Horseshoer:										
Portuguese.....	M.	.....	.....	.....	.....	.....	.....	1	53	4.00

a Including 2 boys.

b Boy.

c Including 1 boy.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

CARRIAGE MAKING (2 ESTABLISHMENTS)—Concluded.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Horseshoer's helpers:										
American.....	M.							1	53	\$3.00
Portuguese.....	M.							1	53	1.83½
Total.....	M.							2	53	2.16½
Laborers:										
Portuguese.....	M.	2	53	\$1.50						
Manager:										
American.....	M.	1	53	8.62½	1	53	\$8.62½			
Office boy:										
American.....	M.	1	53	1.34						
Painters:										
Chinese.....	M.	6	53	1.90½	5	53	1.53½	1	53	2.00
Hawaiian.....	M.							1	53	2.50
Irish.....	M.							2	53	4.60
Total.....	M.	6	53	1.90½	5	53	1.53½	4	53	3.37½
Painters' helpers:										
Hawaiian.....	M.							a 2	53	a .87½
Trimmers:										
American.....	M.							1	53	3.75
German.....	M.							1	53	5.00
Hawaiian.....	M.	1	53	1.25	b 2	53	b .91½			
Portuguese.....	M.	1	53	.83½						
Total.....	M.	2	53	1.04½	b 2	53	b .91½	2	53	4.37½
Trimmers' helpers:										
American.....	M.							1	53	1.66½
Hawaiian.....	M.							a 2	53	a .95½
Part-Hawaiian.....	M.							b 1	53	b .50
Total.....	M.							c 4	53	c 1.02
Woodworkers:										
American.....	M.	2	53	3.75						
English.....	M.							1	53	3.60
German.....	M.				1	53	4.00	2	53	4.00
Hawaiian.....	M.				a 2	53	a 1.04½	1	53	2.00
Portuguese.....	M.	2	53	2.16½	1	53	4.00			
Total.....	M.	4	53	2.96	a 4	53	a 2.52	4	53	3.37½
Woodworkers' helper:										
Portuguese.....	M.							1	53	1.50

COFFEE PLANTATION (1 ESTABLISHMENT).

[Data for 1902 are for 2 establishments.]

Cultivators:										
Hawaiian.....	M.				1	60	\$1.00			
Japanese.....	M.				19	60	.77	10	(d)	(e)
Portuguese.....	M.				2	60	1.00			
Total.....	M.				22	60	.80	10	(d)	(e)
Dryer:										
Hawaiian.....	M.							1	59	\$1.00
Engineer:										
Japanese.....	M.							1	59	1.50
Hullers:										
Japanese.....	M.							2	59	.69

a Including 1 boy.

b Boys.

c See notes to details.

d Irregular.

e \$0.90 per acre per month. 1 man cultivates from 15 to 20 acres.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

COFFEE PLANTATION (1 ESTABLISHMENT)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Mechanic:										
Japanese.....	M.							1	59	\$1.25
Overseer:										
Japanese.....	M.				1	60	\$1.07½			
Pickers:										
Japanese and Portuguese.....	(a)				65	(b)	(c)			
Japanese.....								40	(b)	(d)
Japanese.....	F.							20	(b)	(e)
Total.....					65	(b)	(c)	60	(b)	(e)
Planters, contract:										
Japanese.....	M.							6	(b)	(e)
Pulpers:										
Japanese.....	M.							3	59	.69
Stableman:										
Hawaiian.....	M.							1	70	1.00
Wood choppers:										
Japanese.....	M.							2	(b)	(f)

ELECTRIC LIGHT AND ICE (2 ESTABLISHMENTS).

[Data for 1902 are for 1 establishment.]

Bookkeepers:										
American.....	M.							1	44	\$4.79
Hawaiian.....	M.							1	45	3.83½
Total.....	M.							2	46	4.31½
Cashier:										
American.....	M.							1	48	8.62½
Clerks:										
German.....	M.							1	44	1.72½
Portuguese.....	M.							2	46	2.82½
Total.....	M.							3	45.3	2.46
Coal passers:										
Japanese.....	M.				2	66	\$1.34			
Cold-storage men:										
American.....	M.				2	66	2.87½			
Hawaiian.....	M.							1	84	1.15
Japanese.....	M.				1	66	1.15			
Total.....	M.				3	66	2.30	1	84	1.15
Collectors:										
Chinese.....	M.							3	44	2.17
Portuguese.....	M.							1	48	2.87½
Total.....	M.							4	45	2.34½
Drivers:										
Hawaiian.....	M.							7	72	1.97½
Engineers:										
American.....	M.				3	66	4.60	3	66	3.94½
Engineer, chief:										
American.....	M.				1	66	6.90	1	63	5.92
Firemen:										
American.....	M.				4	66	2.87½	3	56	2.46½

a Men, women, and children.

b Irregular.

c Receive 50 cents per cwt. of coffee in berry. Earnings, \$0.50 to \$2 per day.

d Receive 45 cents per cwt. of coffee in berry. Earnings, \$0.45 to \$1.12½ per day.

e Receive \$0.88 per cwt. and house rent.

f \$2 per cord.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

ELECTRIC LIGHT AND ICE (2 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Foremen, cold storage:										
American	M.				1	66	\$3.06½			
Hawaiian	M.							1	84	\$2.63
Foreman, construction:										
American	M.				1	48	5.75			
Foreman, ice factory:										
Portuguese	M.							1	56	3.83½
Foreman, linemen:										
American	M.				1	48	3.83½	1	44	3.83½
Foreman, wiremen:										
American	M.							1	44	3.83½
House wireman, electric fitter:										
American	M.				1	48	3.50			
Ice-machine tenders:										
Japanese	M.				3	66	1.00			
Portuguese	M.				1	66	2.00			
Total	M.				4	66	1.25			
Ice pullers:										
Japanese	M.							2	72	1.15
Ice-tank men:										
American	M.				2	66	2.87½			
Inspector:										
American	M.							1	44	1.91½
Janitor:										
Portuguese	M.							1	44	1.34
Laborers:										
Japanese	M.							4	63	1.00
Linemen:										
American	M.				2	48	2.50			
Hawaiian	M.				4	48	2.18½	5	44	2.55
Total	M.				6	48	2.29	5	44	2.55
Machinist:										
American	M.							1	63	4.11
Machinist's helper:										
Portuguese	M.							1	63	2.50
Meter man:										
American	M.				1	48	3.45	1	44	4.60
Meter men, assistant:										
American	M.				2	48	2.49½			
Meter man's helpers:										
American	M.							2	44	1.62½
Office boy:										
Portuguese	M.							1	44	.83½
Oilers:										
Japanese	M.				4	66	1.43½	6	80	1.20½
Stablemen:										
American	M.				1	66	2.35			
Japanese	M.				2	66	1.15	4	64	1.11
Portuguese	M.							1	56	2.35
Total	M.				3	66	1.55	5	62.4	1.35½
Stenographer:										
American	F.							1	44	3.83½
Storekeepers:										
American	M.				1	48	3.83½			
Portuguese	M.							1	44	2.30
Total	M.				1	48	3.83½	1	44	2.30
Storekeepers' helper:										
Portuguese	M.							a 1	44	a .83½
Superintendent, electric-light plant:										
American	M.							1	48	6.71

a Boy.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

ELECTRIC LIGHT AND ICE (2 ESTABLISHMENTS)—Concluded.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Superintendent, ice factory:										
American.....	M.				1	66	\$4.47½	1	48	\$7.67
Switchmen:										
American.....	M.				1	48	2.11			
German.....	M.							1	63	2.30
Tank men:										
American.....	M.							1	84	1.97½
Hawaiian.....	M.							1	84	1.97½
Total.....	M.							2	84	1.97½
Teamsters, ice wagon:										
American.....	M.				9	66	2.58	3	56	1.97½
Canadian.....	M.							2	56	1.97½
German.....	M.							2	56	2.22
Swedish.....	M.							1	56	1.97½
Total.....	M.				9	66	2.58	8	56	2.03½
Trimmer, arc:										
Portuguese.....	M.							1	44	2.49
Wiper:										
Japanese.....	M.				1	66	1.15			
Wire men:										
American.....	M.				5	48	2.90	3	44	3.19
German.....	M.							1	44	3.50
Hawaiian.....	M.							1	44	3.00
Portuguese.....	M.							1	44	2.00
Total.....	M.				5	48	2.90	6	44	3.01
Wire men's helpers:										
Hawaiian.....	M.							1	44	1.50
Part-Hawaiian.....	M.				1	48	1.25			
Portuguese.....	M.				3	48	1.58½			
Total.....	M.				4	48	1.50	1	44	1.50

FERTILIZERS (1 ESTABLISHMENT).

Bag sewers:										
Japanese.....	F.							6	56	\$0.75
Bookkeeper:										
German.....	M.				1	53	\$2.87½	1	56	5.75
Chemist:										
German.....	M.				1	53	7.67	1	56	9.68½
Chemist's helper:										
Portuguese.....	M.							1	56	1.25
Clerks:										
American.....	M.							1	56	5.75
German.....	M.							1	56	4.79
Total.....	M.							2	56	5.27
Engineers:										
American.....	M.				1	53	5.75	1	72	5.39
Part-Hawaiian.....	M.							1	72	4.16½
Total.....	M.				1	53	5.75	2	72	5.27½
Engine-room men and firemen:										
Japanese.....	M.				10	53	1.25			
Firemen:										
German.....	M.							1	72	1.75
Portuguese.....	M.							1	72	1.50
Total.....	M.							2	72	1.62½

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

FERTILIZERS (1 ESTABLISHMENT)—Concluded.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Foremen, laborers:										
Japanese.....	M.							6	56	\$1.61
Laborers:										
Chinese.....	M.				1	53	\$1.25	1	56	1.25
Japanese.....	M.				37	53	1.25	35	56	1.25
Portuguese.....	M.							1	56	1.25
Total.....	M.				38	53	1.25	37	56	1.25
Lead burner:										
Japanese.....	M.							1	56	2.49
Overseers:										
Japanese.....	M.				3	53	1.50			
Superintendent, acid department:										
German.....	M.				1	53	7.67	1	56	7.67
Superintendent, factory:										
German.....	M.				1	53	11.50	1	56	11.50
Watchman:										
German.....	M.				1	84	1.64½	1	84	1.97½

FOUNDRY AND MACHINE SHOP (3 ESTABLISHMENTS).

[Data for 1900-1901 and 1902 are for 1 establishment.]

Blacksmiths:										
American.....	M.				1	53	\$4.50	2	52	\$4.37½
Canadian.....	M.	2	53	\$4.50						
German.....	M.							1	54	4.00
Hawaiian.....	M.	1	53	4.25	3	53	2.75			
New Zealander.....	M.							1	54	4.50
Portuguese.....	M.				1	53	2.00	1	54	3.75
Scotch.....	M.	1	53	4.50						
Total.....	M.	4	53	4.43½	5	53	2.95	5	53.2	4.20
Blacksmiths' apprentices:										
Dutch.....	M.	1	53	1.66½						
German.....	M.							1	54	1.33½
Scotch.....	M.	1	53	1.16½						
Total.....	M.	2	53	1.41½				1	54	1.33½
Blacksmiths' helpers:										
Hawaiian.....	M.	6	53	1.64	1	53	2.16½	5	51.6	1.73½
Part-Hawaiian.....	M.							1	54	2.17
Portuguese.....	M.	3	53	1.55½	2	53	1.41½	6	54	1.91½
Total.....	M.	9	53	1.61	3	53	1.66½	12	53	1.86
Boiler makers:										
American.....	M.	7	53	4.50	8	53	4.50	7	52.3	3.85½
Canadian.....	M.	1	53	4.50						
English.....	M.	3	53	4.50						
Hawaiian.....	M.				4	53	2.12½	2	52	3.37½
Irish.....	M.	1	53	4.50				5	54	4.15
Portuguese.....	M.							2	54	2.75
Scotch.....	M.	1	53	4.50						
Swedish.....	M.	1	53	4.50						
Total.....	M.	14	53	4.50	12	53	3.71	16	53	3.75
Boiler makers' apprentices:										
American.....	M.							6	54	1.14
Hawaiian.....	M.							13	54	1.41½
Part-Hawaiian.....	M.							1	54	1.50
Portuguese.....	M.							1	50	.50
Total.....	M.							21	53.8	1.29½

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

FOUNDRY AND MACHINE SHOP (3 ESTABLISHMENTS)—Continued

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Boiler makers' helpers:										
Hawaiian	M.	32	53	\$1.69	13	53	\$1.46	20	52.4	\$1.74
Portuguese	M.	2	53	1.41	1	53	1.16	1	50	1.16
Spanish	M.	1	53	1.66						
Total	M.	35	53	1.58	14	53	1.44	21	52.3	1.71
Carpenters:										
American	M.	2	53	4.50						
German	M.	1	53	4.50						
Hawaiian	M.	7	53	3.29	1	53	3.00			
Portuguese	M.	2	53	2.77				1	50	2.50
Scotch	M.	2	53	4.50						
Total	M.	14	53	3.65	1	53	3.00	1	50	2.50
Chippers:										
German	M.	1	53	1.50						
Scotch	M.	1	53	3.50						
Total	M.	2	53	2.50						
Coppersmith:										
Hawaiian	M.	1	53	3.00						
Coppersmith's helper:										
Hawaiian	M.	1	53	1.33						
Draftsmen:										
American	M.							4	54	3.25
Engineer, stationary:										
Swedish	M.	1	53	3.00						
Engineer's helper, stationary:										
Norwegian	M.	1	53	1.50						
Firemen:										
German	M.	1	53	2.00						
Hawaiian	M.	1	53	2.00						
Portuguese	M.	1	53	3.00						
Total	M.	3	53	2.33						
Foremen, blacksmiths:										
American	M.				1	53	7.00			
English	M.	1	53	7.00						
New Zealander	M.							1	54	7.00
Foremen, boiler makers:										
American	M.				1	53	7.00	1	50	6.00
Canadian	M.	1	53	7.00						
Scotch	M.							1	54	7.00
Total	M.	1	53	7.00	1	53	7.00	2	52	6.50
Foreman, carpenters:										
American	M.	1	53	4.80						
Foremen, laborers:										
American	M.	1	53	2.50						
English	M.	2	53	3.00						
German	M.	1	53	2.25						
Hawaiian	M.	2	53	3.00						
Portuguese	M.	2	53	2.75						
Total	M.	8	53	2.78						
Foremen, machinists:										
American	M.				1	53	7.00	1	54	7.00
Scotch	M.	1	53	7.00						
Foreman, machinists, assistant:										
American	M.				1	53	5.25			
Foremen, molders:										
American	M.				1	53	7.00	1	50	6.00
Scotch	M.	1	53	7.00						
Swedish	M.							1	54	
Total	M.	1	53	7.00	1	53	7.00	2	52	

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.
FOUNDRY AND MACHINE SHOP (3 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Foremen, pattern makers:										
American.....	M.	.....	.....	.....	1	53	\$7.00	.....	.....	.....
English.....	M.	.....	.....	.....	.....	.....	.....	1	50	\$6.00
Portuguese.....	M.	.....	.....	.....	.....	.....	.....	1	54	6.00
Scotch.....	M.	1	53	\$7.00	.....	.....	.....	.....	.....	.....
Total.....	M.	1	53	7.00	1	53	7.00	2	52	6.00
Foreman, warehouse:										
Part-Hawaiian.....	M.	.....	.....	.....	.....	.....	.....	1	54	3.50
Laborers:										
African.....	M.	1	53	1.50	.....	.....	.....	.....	.....	.....
American.....	M.	7	53	1.33½	.....	.....	.....	.....	.....	.....
Filipino.....	M.	3	53	1.66½	.....	.....	.....	.....	.....	.....
German.....	M.	2	53	2.00	.....	.....	.....	.....	.....	.....
Hawaiian.....	M.	90	53	1.42½	3	53	2.05½	2	54	2.00
Portuguese.....	M.	48	53	1.45	6	53	1.80½	4	54	2.00
Russian.....	M.	1	53	2.00	.....	.....	.....	.....	.....	.....
Samoan.....	M.	1	53	1.66½	.....	.....	.....	.....	.....	.....
Total.....	M.	153	53	1.45	9	53	1.89	6	54	2.00
Machinists:										
American.....	M.	14	53	3.96½	22	53	4.15	31	53.4	3.96
Danish.....	M.	.....	.....	.....	.....	.....	.....	1	54	4.00
English.....	M.	2	53	6.00	.....	.....	.....	5	50.8	3.95
French.....	M.	.....	.....	.....	.....	.....	.....	1	54	4.50
German.....	M.	2	53	4.12½	.....	.....	.....	1	54	4.00
Hawaiian.....	M.	6	53	3.58½	14	53	2.41	3	54	2.66½
Part-Hawaiian.....	M.	.....	.....	.....	.....	.....	.....	3	52.7	3.66½
Irish.....	M.	1	53	4.50	.....	.....	.....	1	54	4.00
Italian.....	M.	1	53	4.50	.....	.....	.....	.....	.....	.....
Norwegian.....	M.	.....	.....	.....	1	53	4.25	.....	.....	.....
Polish.....	M.	1	53	3.00	.....	.....	.....	.....	.....	.....
Porto Rican.....	M.	.....	.....	.....	.....	.....	.....	1	54	2.50
Portuguese.....	M.	.....	.....	.....	4	53	2.25	4	53	3.04½
Scotch.....	M.	3	53	3.66½	.....	.....	.....	4	54	4.00
Swedish.....	M.	1	53	4.25	.....	.....	.....	1	50	2.50
Total.....	M.	31	53	3.95	41	53	3.37	56	53.1	3.77
Machinists' apprentices:										
American.....	M.	3	53	.89	.....	.....	.....	22	54	1.21½
English.....	M.	1	53	.58½	.....	.....	.....	.....	.....	.....
German.....	M.	3	53	1.08½	.....	.....	.....	.....	.....	.....
Guam Islander.....	M.	1	53	1.66½	.....	.....	.....	.....	.....	.....
Hawaiian.....	M.	9	53	.88	24	53	1.03	20	54	1.37½
Irish.....	M.	1	53	.91½	.....	.....	.....	.....	.....	.....
Norwegian.....	M.	2	53	.68½	1	53	.91½	.....	.....	.....
Portuguese.....	M.	3	53	.83½	4	53	1.41½	.....	.....	.....
Total.....	M.	23	53	.90	29	53	1.08	42	54	1.29
Machinists' helpers:										
American.....	M.	2	53	2.00	.....	.....	.....	6	52.7	1.96
Hawaiian.....	M.	2	53	2.00	.....	.....	.....	6	53.3	2.04
Hungarian.....	M.	1	53	2.00	.....	.....	.....	.....	.....	.....
Portuguese.....	M.	.....	.....	.....	.....	.....	.....	5	52.4	1.88½
Total.....	M.	5	53	2.00	.....	.....	.....	17	52.8	1.96½
Messenger:										
American.....	M.	.....	.....	.....	.....	.....	.....	1	54	1.00
Molders:										
American.....	M.	12	53	4.40	6	53	4.08½	3	54	3.38½
English.....	M.	.....	.....	.....	.....	.....	.....	1	50	4.40
Hawaiian.....	M.	6	53	3.30	8	53	2.78	8	54	3.16½
Part-Hawaiian.....	M.	.....	.....	.....	.....	.....	.....	2	52	4.26
Irish.....	M.	1	53	4.40	.....	.....	.....	2	54	4.40
Portuguese.....	M.	.....	.....	.....	1	53	3.00	.....	.....	.....
Scotch.....	M.	1	53	4.95	.....	.....	.....	4	54	4.53½
Total.....	M.	20	53	4.09½	15	53	3.31½	20	53.6	3.76½

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

FOUNDRY AND MACHINE SHOP (3 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Molders' apprentices:										
American.....	M.							24	54	\$1.42
English.....	M.	1	53	\$1.16 ^a						
Hawaiian.....	M.	1	53	.50	a1	53	\$1.08 ^a	14	54	1.51 ^a
Norwegian.....	M.							1	50	.90
Portuguese.....	M.	1	53	1.00	a2	53	a.66 ^a	1	50	.66 ^a
Total.....	M.	3	53	.89	a3	53	a.80 ^a	40	53.8	1.41
Molders' helpers:										
American.....	M.							1	54	2.08
Hawaiian.....	M.	14	53	1.63	18	53	1.60	4	51	1.75
Portuguese.....	M.	6	53	1.50	10	53	1.58 ^a	6	52	1.87 ^a
Total.....	M.	20	53	1a59	28	53	1.59 ^a	11	51.8	1.85
Office boys:										
American.....	M.							1	54	.50
Portuguese.....	M.				1	53	.66 ^a			
Pattern makers:										
American.....	M.				1	53	4.50	3	52.7	4.00
English.....	M.	1	53	4.00						
Hawaiian.....	M.	1	53	2.50	3	53	3.50	3	54	3.08 ^a
Part-Hawaiian.....	M.							1	50	4.50
Portuguese.....	M.	3	53	3.33 ^a	3	53	3.75	2	54	3.75
Scotch.....	M.	2	53	4.00				1	54	4.50
Swedish.....	M.	1	53	4.00						
Total.....	M.	8	53	3.56 ^a	7	53	3.75	10	53.2	3.77 ^a
Pattern makers' apprentices:										
American.....	M.							7	54	1.09 ^a
Hawaiian.....	M.	1	53	.66 ^a	3	53	1.05 ^a	1	54	1.00
Portuguese.....	M.	3	53	.55 ^a						
Total.....	M.	4	53	.58 ^a	3	53	1.05 ^a	8	54	1.08 ^a
Porters:										
Hawaiian.....	M.				14	53	1.74			
Portuguese.....	M.				5	53	1.76 ^a			
Total.....	M.				19	53	1.74 ^a			
Rivet heaters:										
Hawaiian.....	M.	4	53	.91 ^a						
Portuguese.....	M.	1	53	1.00						
Total.....	M.	5	53	.93 ^a						
Structural iron workers:										
American.....	M.	1	53	3.50						
Norwegian.....	M.	1	53	3.25						
Total.....	M.	2	53	3.37 ^a						
Teamsters:										
Hawaiian.....	M.	3	53	1.50						
Warehousemen:										
Hawaiian.....	M.							10	54	1.58 ^a
Part-Hawaiian.....	M.							2	54	1.99 ^a
Portuguese.....	M.							1	54	1.66 ^a
Total.....	M.							13	54	1.73
Watchman:										
Hawaiian.....	M.	1	53	2.00						
Wiper and oiler:										
American negro.....	M.							1	50	1.66 ^a

^a Boys.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

HARNESS MAKING (1 ESTABLISHMENT).

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Harness makers:										
American.....	M.	.....	.....	.....	.....	.....	.....	1	54	\$3.00
Canadian.....	M.	.....	.....	.....	.....	.....	.....	1	54	2.50
Hawaiian.....	M.	.....	.....	.....	.....	.....	.....	1	54	2.50
Total.....	M.	.....	.....	.....	.....	.....	.....	3	54	2.66½
Harness makers' helper:										
Hawaiian.....	M.	.....	.....	.....	.....	.....	.....	1	54	1.83½

LAUNDRY (1 ESTABLISHMENT).

Bookkeepers:										
American.....	M.	.....	.....	.....	.....	.....	.....	1	48	\$2.50
American.....	F.	.....	.....	.....	.....	.....	.....	1	48	1.66½
Total.....		.....	.....	.....	.....	.....	.....	2	48	2.08½
Clerk:										
American.....	F.	.....	.....	.....	1	60	\$2.00	.....	.....	.....
Drivers:										
American.....	M.	.....	.....	.....	3	60	2.61	3	60	2.22
English.....	M.	.....	.....	.....	.....	.....	.....	1	60	2.50
Part-Hawaiian.....	M.	.....	.....	.....	1	60	1.66½	.....	.....	.....
Portuguese.....	M.	.....	.....	.....	.....	.....	.....	1	60	.83½
Total.....	M.	.....	.....	.....	4	60	2.37½	5	60	2.00
Engineers:										
American.....	M.	.....	.....	.....	.....	.....	.....	1	60	3.33½
German.....	M.	.....	.....	.....	1	60	3.33½	.....	.....	.....
Firemen:										
Chinese.....	M.	.....	.....	.....	.....	.....	.....	1	60	2.00
Japanese.....	M.	.....	.....	.....	.....	.....	.....	1	60	3.00
Polish.....	M.	.....	.....	.....	1	60	1.66½	.....	.....	.....
Total.....	M.	.....	.....	.....	1	60	1.66½	2	60	2.50
Forewoman:										
American.....	F.	.....	.....	.....	.....	.....	.....	1	60	3.33½
Forewomen, manglers:										
Part-Hawaiian.....	F.	.....	.....	.....	1	60	1.66½	.....	.....	.....
Portuguese.....	F.	.....	.....	.....	.....	.....	.....	1	60	1.66½
Forewoman, polishers:										
Hawaiian.....	F.	.....	.....	.....	1	60	2.00	.....	.....	.....
Ironers:										
American.....	F.	.....	.....	.....	.....	.....	.....	1	60	1.33½
Hawaiian.....	F.	.....	.....	.....	.....	.....	.....	5	60	1.10
Portuguese.....	F.	.....	.....	.....	1	60	1.33½	5	60	1.85
Total.....	F.	.....	.....	.....	1	60	1.33½	11	60	1.01
Janitors:										
American negro.....	M.	.....	.....	.....	.....	.....	.....	1	(b)	.58½
American negro.....	F.	.....	.....	.....	.....	.....	.....	1	(b)	.58½
Total.....		.....	.....	.....	.....	.....	.....	2	(b)	.58½
Machine hands:										
American negro.....	F.	.....	.....	.....	2	60	.75	.....	.....	.....
German.....	M.	.....	.....	.....	.....	.....	.....	1	60	1.00
Hawaiian.....	M.	.....	.....	.....	.....	.....	.....	1	60	1.00
Hawaiian.....	F.	.....	.....	.....	5	60	1.88	3	60	2.00

a Including 1 girl.

b Irregular.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

LAUNDRY (1 ESTABLISHMENT)—Concluded.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Machine hands (concluded):										
Polish.....	F.				1	60	\$0.66 ¹			
Porto Rican.....	F.							1	60	\$0.83 ¹
Portuguese.....	F.				a 11	60	a .77	2	60	.83 ¹
Total.....					b 20	60	b .79	3	60	1.31 ¹
Manglers:										
Porto Rican.....	F.							c 2	60	c .50
Portuguese.....	F.							c 11	60	c .68 ¹
Total.....	F.							c 13	60	c .65 ¹
Markers and sorters:										
American.....	M.				2	60	3.00	1	60	2.50
Hawaiian.....	M.							1	60	1.83 ¹
Portuguese.....	M.							1	60	1.00
Total.....	M.				2	60	3.00	3	60	1.78
Stableman:										
Japanese.....	M.							1	60	.83 ¹
Starchers:										
American.....	M.				d 1	60	d .75			
Portuguese.....	M.				1	60	1.33 ¹	2	60	.83 ¹
Total.....	M.				e 2	60	e 1.04 ¹	2	60	.83 ¹
Superintendent:										
American.....	M.				1	60	4.79			
Towel boy:										
Hawaiian.....	M.				1	60	.83 ¹			
Wringer boy:										
American.....	M.				1	60	1.00			

MILK, CREAM, AND BUTTER (1 ESTABLISHMENT).

Can washers:										
Japanese.....	M.							3	70	\$1.15
Drivers:										
Portuguese.....	M.							6	84	2.30
Stablemen:										
Japanese.....	M.							2	70	1.01 ¹

PLANING MILLS (4 ESTABLISHMENTS).

[Data for 1900-1901 and 1902 are for 1 establishment.]

Band sawyer:										
American.....	M.							1	48	\$4.50
Band sawyer's helper:										
American.....	M.							1	48	2.50
Carpenters:										
American.....	M.							6	48	4.08 ¹
English.....	M.							1	48	4.00
Polish.....	M.							1	48	3.50
Portuguese.....	M.							1	48	4.00
Swedish.....	M.							1	48	3.50
Total.....	M.							10	48	3.95
Driver:										
Portuguese.....	M.							1	48	1.58

a Including 2 girls.
b Including 3 girls.
c Girls.

d Boy.
e Including 1 boy.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

PLANING MILLS (4 ESTABLISHMENTS)—Concluded.

Occupation and nationality.	Sex	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Engineers:										
Hawaiian	M.							2	48	\$1.58½
Portuguese	M.	1	48	\$2.00	1	47	\$2.25	1	48	2.00
Total	M.	1	48	2.00	1	47	2.25	3	48	1.72
Foremen:										
American	M.				1	47	5.50	1	48	5.50
German	M.							2	50.5	5.25
Total	M.				1	47	5.50	3	49.7	5.33½
Laborers:										
Hawaiian	M.	5	48	1.43	2	47	1.50	2	48	1.50
Part-Hawaiian	M.	a 1	48	a .83						
Portuguese	M.	b 5	48	b 1.28	5	47	1.50	10	49	1.45
Total	M.	c 11	48	c 1.31	7	47	1.50	12	48.8	1.46
Machine hands:										
American	M.	1	48	4.25	1	47	4.00	1	48	3.50
Portuguese	M.							2	53	1.83½
Total	M.	1	48	4.25	1	47	4.00	3	51.3	2.39
Mill hands:										
American	M.							d 4	48	a 1.00
Hawaiian	M.							1	48	2.00
Total	M.							d 5	48	d 1.20
Office boy:										
American	M.							1	48	.66
Planer hand:										
American	M.	1	48	4.50	1	47	4.50			
Polisher:										
Hawaiian	M.							e 1	53	a 1.00
Sticker hand:										
American	M.	1	48	5.00	1	47	5.00	1	48	5.00
Sticker hand's helper:										
Hawaiian	M.							1	48	1.50
Teamster:										
Portuguese	M.				1	47	1.50	1	48	1.50
Turners:										
American	M.				1	47	4.00			
German	M.	1	48	4.00						
Watchman:										
Japanese	M.							1	84	1.75

POI FLOUR MAKING (1 ESTABLISHMENT).

Grinder:										
Japanese	M.							1	57	e \$1.00
Grinder's helpers:										
Japanese	M.							1	(f)	e .71½
Japanese	F.							1	(f)	e .43
Total								2	(f)	e .57½
Slicer and driver:										
American	M.							g 1	57	g .65

a Boys.

b Including 1 boy.

c See notes to details.

d Including 4 boys.

e Also board and lodging, valued at \$3 per week.

f Irregular.

g Boy; receives also board and lodging, valued at \$3 per week.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

PRINTING, JOB (2 ESTABLISHMENTS).

[Data for 1900-1901 and 1902 are for 1 establishment.]

Occupation and nationality.	Sex.	1900-1901.			1902.			1903.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Bookbinders:										
American.....	M.							1	48	\$1.33 ^a
Hawaiian.....	M.	2	53	\$1.91 ^a	2	53	\$1.91 ^a	1	50.5	2.00
Portuguese.....	M.							1	48	2.00
Total.....	M.	2	53	1.91 ^a	2	53	1.91 ^a	3	48.8	2.78
Bookbinders' apprentices:										
Hawaiian.....	M.							1	50.5	.50
Portuguese.....	M.							1	50.5	1.00
Total.....	M.							2	50.5	.75
Bookbinders' helpers:										
Hawaiian.....	F.							7	48	1.68
Part-Hawaiian.....	F.							1	48	1.16 ^a
Portuguese.....	M.							3	48	1.00
Portuguese.....	F.							2	48	1.58 ^a
Total.....								14	48	1.76 ^a
Bookkeeper:										
American.....	M.	1	53	2.08 ^a	1	53	2.08 ^a	1	50.5	2.33 ^a
Clerk:										
American.....	M.							1	48	2.00
Compositors:										
American.....	M.	2	53	3.00	2	53	3.00	2	48	3.21
American.....	F.	1	53	1.66 ^a	1	53	1.66 ^a			
Hawaiian.....	M.	2	53	2.00	2	53	2.00	7	48.7	2.43
Portuguese.....	M.							1	50.5	2.08 ^a
Total.....		5	53	2.83 ^a	5	53	2.83 ^a	10	48.8	2.55
Compositors' apprentices:										
Hawaiian.....	M.							3	48	1.14
Folders:										
American.....	F.				1	53	.70			
Hawaiian.....	M.	1	53	.83 ^a	1	53	.83 ^a			
Hawaiian.....	F.	1	53	.50						
Scotch.....	F.	1	53	.83 ^a	1	53	.83 ^a			
Total.....		3	53	.72 ^a	3	53	.72 ^a			
Foreman:										
American.....	M.							1	50.5	4.00
Foreman, bookbinders:										
American.....	M.							1	48	5.00
Foreman, compositors:										
American.....	M.							1	48	5.83 ^a
Linotype operators:										
American.....	M.							2	48	5.38 ^a
Hawaiian.....	M.							2	48	3.00
Total.....	M.							4	48	4.19
Linotype operators' apprentice:										
Portuguese.....	M.							1	48	1.00
Manager:										
American.....	M.							1	50.5	6.66 ^a
Office boy:										
Hawaiian.....	M.	1	53	.83 ^a	1	53	.83 ^a			
Press feeders:										
American.....	M.	1	53	1.66 ^a	1	53	1.66 ^a	1	50.5	1.00
Hawaiian.....	M.							2	50.5	1.33 ^a
Portuguese.....	M.	1	53	.83 ^a	1	53	.83 ^a			
Total.....	M.	2	53	1.25	2	53	1.25	3	50.5	1.22

^a Including 6 girls.
^b Boys.^c Girls.
^d See notes to details.^e Be.
^f In.

Total 110.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

PRINTING, JOB (2 ESTABLISHMENTS)—Concluded.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Ave- age hours per week.	Ave- age wages per day.	Em- ploy- ees.	Ave- age hours per week.	Ave- age wages per day.	Em- ploy- ees.	Ave- age hours per week.	Ave- age wages per day.
Pressmen:										
American	M.	1	53	\$2.75	1	53	\$2.75	1	48	\$3.50
Part-Hawaiian	M.							1	48	1.25
Portuguese	M.							3	48	2.19½
Total	M.	1	53	2.75	1	53	2.75	5	48	2.26½
Pressmen's helper:										
Portuguese	M.							1	48	1.50
Printer's apprentice:										
Hawaiian	M.							1	50.5	.50

PRINTING, NEWSPAPER (1 ESTABLISHMENT).

Bookkeeper:										
German	M.							1	48	\$4.98½
Carriers:										
American	M.							5	21	.60½
Hawaiian	M.							4	21	.60½
Part-Hawaiian	M.							2	21	.64½
Total	M.							11	21	.61
Cashier:										
American	F.							1	48	1.66½
Clerk:										
American	M.							1	48	2.33½
Collector:										
American	M.							1	48	3.33½
Collector, assistant:										
American	M.							1	48	1.16½
Compositors:										
American	M.							1	48	3.33½
Hawaiian	M.							2	48	3.12½
Portuguese	M.							1	48	2.25
Total	M.							4	48	2.96
Compositors' helpers:										
American	M.							2	48	2.00
Editors:										
American	M.							1	48	10.00
Hawaiian	M.							1	48	3.33½
Total	M.							2	48	6.66½
Foreman, compositors:										
American	M.							1	48	6.66½
Foreman, pressmen:										
American	M.							1	48	4.50
Librarian:										
American	M.							1	48	3.33½
Linotype operators:										
American	M.							2	48	5.00
Hawaiian	M.							1	48	4.00
Total	M.							3	48	4.66½
Manager, advertising:										
American	M.							1	48	4.79
Manager, business:										
American	M.							1	48	11.50
Manager, business, assistant:										
American	M.							1	48	5.75

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.
PRINTING, NEWSPAPER (1 ESTABLISHMENT)—Concluded.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Office boy:										
American	M.							1	48	\$0.50
Photo-engraver:										
Part-Hawaiian	M.							1	48	3.23½
Photo-engraver's helper:										
Portuguese	M.							1	48	1.08½
Pressman:										
Hawaiian	M.							1	(a)	4.09
Proof reader:										
Hawaiian	M.							1	(a)	3.75
Proof reader's assistant:										
Hawaiian	M.							1	48	.83½
Reporters:										
American	M.							3	48	5.28
Hawaiian	M.							1	48	1.66½
Total	M.							4	48	4.37½

RICE CLEANING (1 ESTABLISHMENT).

Engineer:										
Chinese	M.				1	72	\$1.15	1	54	\$1.73
Fireman:										
Chinese	M.				1	72	.76½			
Foreman:										
Chinese	M.				1	72	1.15	1	54	1.34½
Laborers:										
Chinese	M.				3	72	.76½	6	54	.95

RICE PLANTATIONS (3 ESTABLISHMENTS).

[Data for 1902 are for 1 establishment.]

Cooks:										
Chinese	M.							10	79.8	b \$0.62
Field hands:										
Chinese	M.				140	84	\$0.69	268	79.1	b .58
Foremen:										
Chinese	M.							6	84	d .82
Irrigators:										
Chinese	M.							2	(a)	e .66
Managers:										
Chinese	M.							2	(a)	e .82
Manager, assistant:										
Chinese	M.							1	(a)	e .66
Partners:										
Chinese	M.							25	(a)	(f)
Stablemen:										
Chinese	M.							4	84	d .59

a Irregular.

b Also board, valued at from \$6 to \$7 per month.

c Estimate.

d Also board, valued at \$6 per month.

e Also board, valued at \$7 per month.

f Not reported. Also board, valued at \$7 per month.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SODA WATER AND SOFT DRINKS (1 ESTABLISHMENT).

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Bookkeepers:										
Hawaiian	M.	.....	.....	.....	1	47	\$2.30	.....	.....	.....
Part-Hawaiian	M.	.....	.....	.....	.....	.....	.....	1	53	\$1.72½
Bottlers:										
Hawaiian	M.	5	53	\$1.33½	2	47	1.33½	3	53	1.11
Japanese	M.	2	53	1.16½	2	47	1.25	2	53	1.25
Total	M.	7	53	1.28½	4	47	1.29	5	53	1.16½
Bottle washers:										
Hawaiian	M.	2	53	1.00	1	47	1.00	.....	.....	.....
Japanese	M.	7	53	1.00	6	47	1.00	.....	.....	.....
Total	M.	9	53	1.00	7	47	1.00	.....	.....	.....
Collector:										
Hawaiian	M.	1	53	1.91½	.....	.....	.....	.....	.....	.....
Drivers:										
American	M.	2	53	2.87½	2	47	2.68½	1	53	2.68½
English	M.	.....	.....	.....	.....	.....	.....	1	53	2.68½
Hawaiian	M.	2	53	2.09½	2	47	2.17½	.....	.....	.....
Part-Hawaiian	M.	.....	.....	.....	.....	.....	.....	1	53	2.68½
Total	M.	4	53	2.48½	4	47	2.43	3	53	2.68½
Machinist hand:										
Hawaiian	M.	.....	.....	.....	1	47	1.16½	.....	.....	.....
Manager:										
American	M.	.....	.....	.....	1	47	6.71	1	53	5.75
Sirup mixers:										
American	M.	1	53	2.80	.....	.....	.....	.....	.....	.....
Hawaiian	M.	.....	.....	.....	1	47	1.50	1	53	1.50

STEAM RAILROADS (4 ESTABLISHMENTS).

[Data for 1900-1901 are for 1 establishment; 1902, for 3 establishments.]

Accountant:										
American	M.	.....	.....	.....	.....	.....	.....	1	60	\$6.13½
Agent, express:										
American	M.	.....	.....	.....	1	54	\$1.91½	.....	.....	.....
Agent, freight:										
American	M.	.....	.....	.....	1	54	5.75	1	53	4.10
Agents, station:										
American	M.	2	54	\$1.91½	11	(d)	1.91	7	60	2.16
English	M.	.....	.....	.....	1	(d)	2.87½	.....	.....	.....
German	M.	3	54	2.23½	.....	.....	.....	.....	.....	.....
Hawaiian	M.	3	54	1.91½	4	(d)	2.39½	.....	.....	.....
Portuguese	M.	.....	.....	.....	1	(d)	2.68½	2	(d)	1.72½
Total	M.	8	54	2.03½	17	(d)	2.12½	9	60	2.06½

a1 employee furnished also with house.

b Also house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

c Also lodging.

d Irregular.

e Hours are reported for 3 employees only.

f 4 employees furnished also with house, and 3 employees furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

g And house, fuel, water, transportation of children to school, and medical attendance.

h 2 employees furnished also with lodging.

i 2 employees furnished also with house, fuel, water, transportation of children to school, and medical attendance.

j See notes to d.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

STEAM RAILROADS (4 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1903.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Agents, ticket:										
American	M.				1	54	\$4.79	5	(a)	\$1.22
Hawaiian	M.							3	(a)	1.64
Total	M.				1	54	4.79	9	(a)	1.82
Ballast men:										
Japanese	M.	26	54	\$1.00	10	53	1.00			
Blacksmiths:										
American	M.	1	54	4.00	3	53.3	4.50	1	53	5.00
Hawaiian	M.							1	59	1.54
Portuguese	M.	2	54	2.80	2	53.5	\$2.97	1	60	\$3.45
Total	M.	3	54	3.20	5	53.4	\$3.89	3	57.3	\$3.33
Blacksmiths' helpers:										
Hawaiian	M.				2	53	2.35			
Part-Hawaiian	M.							1	53	2.06
Irish	M.	1	54	1.75						
Japanese	M.	2	54	1.50						
Portuguese	M.				2	53.5	2.00			
Total	M.	3	54	1.68	4	53.3	2.17	1	53	2.09
Boatmen:										
Hawaiian	M.							8	59	1.50
Boiler maker:										
American	M.	1	54	4.50						
Boiler maker's helper:										
Irish	M.	1	54	1.85						
Bookkeepers:										
American	M.				1	54	5.75			
Australian	M.				1	54	\$6.75			
Portuguese	M.							1	59	3.64
Total	M.				2	54	\$6.75	1	59	3.64
Bookkeeper, assistant:										
German	M.				1	54	\$4.21			
Brakemen:										
American	M.							1	(a)	1.50
Hawaiian	M.				2	54	1.72	16	\$59.7	\$1.50
Portuguese	M.							4	7 60	\$1.36
Total	M.				2	54	1.72	21	\$59.8	\$1.48
Brakemen, freight:										
Hawaiian	M.	13	54	1.21	10	53	1.50			
Brakemen, passenger:										
American	M.				3	54	2.00			
Hawaiian	M.	3	54	1.50	3	53	1.50			
Total	M.	3	54	1.50	6	53.5	1.75			
Bridge man:										
Japanese	M.							1	84	1.00

a Irregular.

b Employee furnished also with house, fuel, water, transportation of children to school, and medical attendance.

c 1 employee furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

d Hours reported for 3 employees only.

e 2 employees furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

f Hours reported for 2 employees only.

g Hours reported for 5 employees only.

h See notes to details.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

STEAM RAILROADS (4 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Captain, tug:										
American.....	M.	.....	.....	.....	1	54	^a \$4.79	1	60	^b \$5.75
Car cleaners:										
Japanese.....	M.	6	54	\$1.00	6	53	1.00	6	64.2	1.16
Car inspector:										
American.....	M.	.....	.....	.....	1	53	3.00	1	70	2.55
Carpenters:										
American.....	M.	15	54	3.40	8	53.3	3.73	3	53.7	3.55
Austrian.....	M.	.....	.....	.....	.....	.....	.....	1	60	^b 3.50
German.....	M.	2	54	3.65	.....	.....	.....	.....	.....	.....
Hawaiian.....	M.	10	54	2.16 ⁴	4	53.5	2.42 ⁴	.....	.....	.....
Irish.....	M.	3	54	2.66 ⁴	.....	.....	.....	.....	.....	.....
Japanese.....	M.	17	54	1.38 ⁴	3	54	^c 2.00	7	55.6	^d 1.73 ⁴
Portuguese.....	M.	9	54	2.33	8	53	2.48 ⁴	3	54	4.13 ⁴
Swedish.....	M.	3	54	3.00	.....	.....	.....	.....	.....	.....
Total.....	M.	59	54	2.40 ⁴	23	53.3	^c 2.84 ⁴	14	55.1	^e 2.76 ⁴
Carpenters' helpers:										
Hawaiian.....	M.	.....	.....	.....	.....	.....	.....	2	60	^b 1.50
Japanese.....	M.	.....	.....	.....	1	54	1.75	7	60	^b 1.50
Total.....	M.	.....	.....	.....	1	54	1.75	9	60	^b 1.50
Carpenters, work train:										
Japanese.....	M.	2	54	1.62 ⁴	2	53	1.75	.....	.....	.....
Car porter:										
Chinese.....	M.	.....	.....	.....	1	54	1.34	.....	.....	.....
Car repairer:										
Portuguese.....	M.	.....	.....	.....	1	54	2.25	1	54	2.00
Cashiers:										
American.....	M.	.....	.....	.....	.....	.....	.....	2	50.5	5.27
Clerks:										
American.....	M.	.....	.....	.....	.....	.....	.....	1	60	^b 2.87 ⁴
Hawaiian.....	M.	.....	.....	.....	.....	.....	.....	1	59	1.91 ⁴
Part-Hawaiian.....	M.	.....	.....	.....	.....	.....	.....	2	60	^b 2.82 ⁴
Total.....	M.	.....	.....	.....	.....	.....	.....	4	59.8	^e 1.61
Clerk, chief:										
German.....	M.	.....	.....	.....	.....	.....	.....	1	60	^b 5.17 ⁴
Clerks, freight:										
American.....	M.	.....	.....	.....	6	53.2	3.13	5	55.2	^d 3.37 ⁴
American.....	F.	1	54	1.91 ⁴	.....	.....	.....	.....	.....	.....
Hawaiian.....	M.	.....	.....	.....	.....	.....	.....	2	60	^b 2.30
Total.....		1	54	1.91 ⁴	6	53.2	3.13	7	56.6	^e 3.06 ⁴
Clerk, lumber:										
Hawaiian.....	M.	.....	.....	.....	1	54	^a 2.30	.....	.....	.....
Clerks, office:										
American.....	M.	.....	.....	.....	2	53	2.58 ⁴	.....	.....	.....
Irish.....	M.	1	54	2.49	.....	.....	.....	.....	.....	.....
Clerk, roundhouse:										
American.....	M.	1	54	1.91 ⁴	1	53	2.11	.....	.....	.....
Clerks, wharf:										
American.....	M.	.....	.....	.....	.....	.....	.....	4	54	3.00

^a1 employee furnished also with house, fuel, water, transportation of children to school, and medical attendance.

^bAlso house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

^c2 employees furnished also with house, fuel, water, transportation of children to school, and medical attendance.

^d1 employee furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

^eSee notes to details.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

STEAM RAILROADS (4 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Conductors:										
American.....	M.				4	54	\$3.35	8	(b)	\$2.35
American negro.....	M.							1	60	\$1.91
Hawaiian.....	M.							2	59	1.68
Italian.....	M.				1	54	3.45			
Total.....	M.				5	54	\$3.37	11	\$50.5	\$2.91
Conductors, freight:										
American.....	M.	3	54	\$3.45	3	53	3.45			
Conductors, passenger:										
American.....	M.	3	54	3.70	3	53	3.83			
Cook:										
Chinese.....	M.							1	70	\$.82
Cook, work train:										
Chinese.....	M.	1	54	1.07						
Deck hands:										
Hawaiian.....	M.							3	60	\$1.50
Engineers, donkey engine:										
Chinese.....	M.							1	59	1.50
Hawaiian.....	M.							1	60	\$2.30
Total.....	M.							2*	59.5	\$1.90
Engineers, locomotive:										
American.....	M.	8	54	4.14	14	53.4	\$4.01	8	60	\$3.76
German.....	M.							1	60	\$3.33
Hawaiian.....	M.				1	54	\$1.91	2	(b)	2.46
Part-Hawaiian.....	M.							2	60	\$2.10
Portuguese.....	M.	4	54	2.82	3	53.3	\$2.62	5	59	2.57
Total.....	M.	12	54	3.70	18	53.4	\$3.66	18	\$59.8	\$3.08
Engineer, tug:										
American.....	M.				1	54	\$4.79	1	60	\$5.75
Engine helpers:										
Portuguese.....	M.							3	54	.72
Engine wiper:										
Chinese.....	M.							1	59	1.00
Firemen, locomotive:										
American.....	M.	5	54	1.99	4	53.3	2.11	6	(b)	1.71
Hawaiian.....	M.				12	53.5	\$1.84	8	\$50.7	\$1.59
Part-Hawaiian.....	M.	1	54	2.30						
Portuguese.....	M.	7	54	1.75	2	53.5	2.10	4	60	\$1.66
Total.....	M.	13	54	1.88	18	53.4	\$1.93	18	\$59.8	\$1.64
Firemen, shop:										
American.....	M.							1	53	1.50
Portuguese.....	M.				1	54	1.50			
Firemen, tug:										
Hawaiian.....	M.				1	54	\$2.11			
Portuguese.....	M.							1	60	\$2.30

* 1 employee furnished also with house, fuel, water, transportation of children to school, and medical attendance.

b Irregular.

c Also house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

d Hours reported for 1 employee only.

e Hours reported for 2 employees only.

f 1 employee furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

g Also house, fuel, water, transportation of children to school, and medical attendance.

h See notes to details.

i Hours reported for 5 employees only.

j 4 employees furnished also with house, fuel, water, transportation of children to school, and medical attendance.

k Hours reported for 3 employees only.

l 2 employees furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

STEAM RAILROADS (4 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Foremen:										
American	M.							1	60	a \$2.30
German	M.							1	60	a 3.50
Hawaiian	M.							1	60	a 2.00
Total	M.							3	60	a 2.60
Foreman, ballast men:										
Japanese	M.	1	54	\$1.34	1	53	\$1.55			
Foremen, car cleaners:										
American	M.				1	53	2.50			
Swedish	M.	1	54	2.50						
Foremen, car shops:										
American	M.				1	53	5.00			
Irish	M.	1	(b)	4.50						
Foreman, dredge:										
English	M.	1	(b)	3.83						
Foreman, foundry:										
American	M.				1	54	4.98			
Foreman, freight handlers:										
American	M.				1	54	3.06			
Foreman, general:										
Hawaiian	M.				1	54	c 3.83	1	60	a 4.79
Foremen, hostlers, locomotive:										
American	M.				1	53	2.87			
Irish	M.	2	54	2.49						
Portuguese	M.				1	53	2.11			
Total	M.	2	54	2.49	2	53	2.49			
Foreman, laborers:										
Hawaiian	M.							1	59	2.49
Foremen, laborers, yard:										
American	M.				1	53	3.83			
Irish	M.	1	54	3.83						
Foreman, laborers, yard, assistant:										
Irish	M.	1	54	3.00						
Foreman, painters:										
American	M.	1	54	4.00	1	53	4.25			
Foremen, pile drivers:										
American	M.	1	54	5.00						
German	M.	1	54	5.00						
Swedish	M.	1	54	6.00						
Total	M.	3	54	5.33						
Foreman, roundhouse:										
American	M.	1	54	4.79	1	53	4.50			
Foremen, section men:										
Chinese	M.				1	54	c 2.00			
Hawaiian	M.	1	54	1.72	1	54	1.72			
Irish	M.				1	54	1.72			
Japanese	M.	10	54	1.63	15	53.3	1.69	15	58.6	1.66
Total	M.	11	54	1.63	18	53.4	d 1.71	15	58.6	1.66
Foreman, stevedores:										
Portuguese	M.							1	60	a 3.45
Foremen, wharf:										
American	M.				4	53	3.00	2	54	4.00
Irish	M.	6	54	2.91						
Japanese	M.	1	54	1.50						
Total	M.	7	54	2.71	4	53	3.00	2	54	4.00

a Also house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

b Irregular.

c Also house, fuel, water, etc.

d Employee furnished with

children to school, and medical attendance.

water, transportation of children to school, and

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued

STEAM RAILROADS (4 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Foremen, work train:										
German.....	M.	1	54	\$2.30						
Japanese.....	M.	1	54	1.34						
Total.....	M.	2	54	1.82						
Freight handlers:										
American.....	M.	3	54	2.87						
Hawaiian.....	M.	1	54	1.50	2	54	\$1.50			
Part-Hawaiian.....	M.	1	54	2.30						
Japanese.....	M.	15	54	1.01	31	53.4	1.17	13	53.3	\$1.56
Portuguese.....	M.				5	54	1.50			
Total.....	M.	20	54	1.38	38	53.5	1.23	13	53.3	1.56
Hostlers, locomotive:										
American.....	M.	3	54	1.53						
Hawaiian.....	M.	3	54	1.47						
Portuguese.....	M.	3	54	1.53	7	53	1.53			
Total.....	M.	9	54	1.51	7	53	1.53			
Laborers:										
Chinese.....	M.							8	59	1.25
Hawaiian.....	M.				53	54	\$1.25	94	59.9	\$1.47
Japanese.....	M.				72	54	\$1.25	93	60	\$1.32
Total.....	M.				125	54	\$1.25	195	59.9	\$1.39
Laborers, dredge:										
American.....	M.	3	72	2.56						
Japanese.....	M.	8	72	1.37						
Swedish.....	M.	2	72	3.00						
Total.....	M.	13	72	1.90						
Laborers, lumber yard:										
Chinese.....	M.							2	60	\$1.62
Japanese.....	M.							1	60	\$1.50
Total.....	M.							3	60	\$1.58
Laborers, wharf:										
Japanese.....	M.	125	54	1.11	75	53	1.15			
Laborers, work train:										
Japanese.....	M.	36	54	1.00						
Laborers, yard:										
Japanese.....	M.	52	54	1.00						
Machinists:										
American.....	M.	3	54	3.57	6	53.7	3.96	7	53.9	4.60
Chinese.....	M.							1	54	1.30
Hawaiian.....	M.				2	53	3.00	6	54	2.93
Part-Hawaiian.....	M.	1	54	2.70				1	60	\$2.30
Irish.....	M.	1	54	4.00						
Portuguese.....	M.							2	56.5	2.62
Total.....	M.	5	54	3.48	8	53.5	3.72	17	54.6	\$3.48
Machinists' apprentices:										
American.....	M.							1	53	1.75
Norwegian.....	M.				1	54	1.50			
Portuguese.....	M.				1	54	1.25			
Total.....	M.				2	54	1.37	1	53	1.75

\$1.10 a day; after 3 months, \$1.25; after 6 months, \$1.50; also house, fuel, water, transportation of children to school, and medical attendance.

82 employees furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

*Also house, fuel, water, transportation of children to school, medical attendance, and as in case of accident incurred in service.

See notes to details.

*1 employee furnished also with house, fuel, water, transportation of children to school attendance, and assistance in case of accident incurred in service.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

STEAM RAILROADS (4 ESTABLISHMENTS)—Continued.

Occupation and nationality	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Machinists' helpers:										
American.....	M.	3	54	\$2.08 ^d	1	54	\$2.00	a 1	54	a \$1.08
Hawaiian.....	M.	1	54	1.57 ^d	2	53	2.00	a 1	54	a .90
Japanese.....	M.							3	53	b 1.53 ^d
Portuguese.....	M.	4	54	1.66 ^d				4	55.5	c 1.73 ^d
Total.....	M.	8	54	1.81	3	53.3	2.00	d 9	56	d 1.50 ^d
Master car builders:										
American.....	M.				2	53.5	6.71	1	54	7.67
Irish.....	M.	1	(e)	6.71						
Master mechanics:										
American.....	M.	1	(e)	7.67	3	53.7	f 6.39	2	53.5	6.23
Portuguese.....	M.							1	60	e 4.79
Total.....	M.	1	(e)	7.67	3	53.7	f 6.39	3	55.7	e 5.75
Mechanics' apprentices:										
Portuguese.....	M.				2	54	g 1.24 ^d			
Messenger:										
American.....	M.	1	54	1.34						
Molders:										
American.....	M.							1	53	5.00
Hawaiian.....	M.				2	53	2.25	2	54	2.15
Portuguese.....	M.							3	54	2.06 ^d
Russian.....	M.				1	54	2.00			
Scotch.....	M.	2	54	4.00	1	54	4.00			
Total.....	M.	2	54	4.00	4	53.5	2.62 ^d	6	53.8	2.58 ^d
Molders' apprentices:										
Hawaiian.....	M.				2	54	1.50			
Molders' helpers:										
Hawaiian.....	M.	2	54	1.85	3	54	1.58 ^d	1	53	1.25
Japanese.....	M.	2	54	1.15						
Portuguese.....	M.	1	54	2.00	2	53	1.50			
Total.....	M.	5	54	1.60	5	53.6	1.55	1	53	1.25
Oiler:										
Japanese.....	M.							1	54	1.30
Oiler, car:										
Irish.....	M.							1	53	2.30
Oil tender:										
Japanese.....	M.							1	(e)	1.15
Painters:										
American.....	M.				1	53	3.00			
Chinese.....	M.	2	54	1.92 ^d	2	53	2.25	3	54	2.63 ^d
Hawaiian.....	M.	1	54	2.25	2	53.5	2.12 ^d			
Part-Hawaiian.....	M.							1	53	2.20
Total.....	M.	3	54	2.03 ^d	5	53.2	2.35	4	53.8	2.52 ^d
Pattern makers:										
Portuguese.....	M.	1	54	4.50	1	53	4.50			
Swedish.....	M.				1	54	4.75			
Total.....	M.	1	54	4.50	2	53.5	4.62 ^d			

^a Boy.^b 2 employees furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.^c 1 employee furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.^d See notes to details.^e Irregular.^f 1 employee furnished also with house, fuel, water, transportation of children to school, and medical attendance.^g Boys.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

STEAM RAILROADS (4 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Pattern makers' helper: Portuguese.....	M.	1	54	\$2.50						
Pile drivers:										
American.....	M.	8	54	2.68 ¹						
German.....	M.	3	54	3.50						
Hawaiian.....	M.	1	54	2.00						
Irish.....	M.	1	54	4.50						
Japanese.....	M.	1	54	1.25						
Portuguese.....	M.	1	54	2.50						
Swedish.....	M.	5	54	2.50						
Total.....	M.	20	54	2.73 ¹						
Porters:										
American negro.....	M.							1	70	\$1.31 ¹
Hawaiian.....	M.							2	60	\$1.25
Japanese.....	M.							3	68	\$1.91
Total.....	M.							6	65.7	\$1.09
Porters, chair car:										
Chinese.....	M.	2	54	1.34	2	53	\$1.34			
Porter, station:										
Japanese.....	M.	1	54	1.34	1	53	1.34			
Road masters:										
American.....	M.	1	(d)	5.75	1	53	5.75	3	\$59.5	\$4.34 ¹
Japanese.....	M.				1	53	2.87 ¹	1	53	2.30
Total.....	M.	1	(d)	5.75	2	53	4.31 ¹	4	\$57.3	\$3.82 ¹
Roundhouse men:										
American.....	M.							1	63	1.48
Hawaiian.....	M.							1	63	1.23 ¹
Portuguese.....	M.							1	63	2.13 ¹
Total.....	M.							3	63	1.61 ¹
Sailmaker:										
Japanese.....	M.							1	60	\$1.50
Scales man:										
American.....	M.							1	(d)	3.29
Scavenger:										
Chinese.....	M.							1	60	\$1.00
Section men:										
Hawaiian.....	M.	1	54	1.00						
Japanese.....	M.	118	54	1.00	183	53.4	1.02	162	59.8	\$1.98
Portuguese.....	M.	3	54	1.11 ¹				4	60	1.27 ¹
Total.....	M.	122	54	1.00 ¹	183	53.4	1.02	166	59.8	\$1.98 ¹
Signalman:										
Portuguese.....	M.	1	54	.96						
Station masters:										
Hawaiian.....	M.							4	59	.96

^a Also house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

^b 2 employees furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

^c See notes to details.

^d Irregular.

^e Hours reported for 2 employees only.

^f 1 employee furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

^g Hours reported for 3 employees only.

^h 10 employees furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

STEAM RAILROADS (4 ESTABLISHMENTS)—Concluded.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Stenographers:										
American.....	F.	1	54	\$2.87½	1	53	\$3.26	1	48	\$3.26
Part-Hawaiian.....	M.				1	54	\$1.91½			
Total.....		1	54	2.87½	2	53.5	\$2.58½	1	48	3.26
Storekeepers:										
American.....	M.							1	54	2.49
French.....	M.							1	53	3.45
Total.....	M.							2	53.5	2.97
Superintendents, wharf:										
American.....	M.				1	53	5.75			
Swedish.....	M.	1	(b)	5.75						
Telephone operator:										
American.....	M.							1	(b)	1.97½
Track walker:										
Chinese.....	M.							1	59	1.25
Train dispatchers:										
American.....	M.				1	53	5.75	3	(b)	3.89
English.....	M.	1	(b)	4.79						
Watchmen:										
Hawaiian.....	M.							1	84	1.15
Japanese.....	M.							7	81	1.10½
Portuguese.....	M.				1	63	\$1.91½	3	84	\$1.81
Russian.....	M.				1	63	1.72½			
Total.....	M.				2	63	\$1.82	11	82.1	\$1.80
Weighmaster:										
American.....	M.	1	(b)	2.87½						
Wharfingers:										
American.....	M.							1	54	6.71
Portuguese.....	M.							1	53	1.72½
Total.....	M.							2	53.5	4.21½
Wharf men:										
Japanese.....	M.							81	54	1.16½
Winch drivers:										
Hawaiian.....	M.							6	60	\$2.00
Wipers:										
Hawaiian.....	M.				2	54	1.53½			
Japanese.....	M.							1	60	\$1.75
Portuguese.....	M.				2	54	1.72½			
Total.....	M.				4	54	1.63	1	60	\$1.75
Yard masters:										
American.....	M.	1	(b)	5.17½	1	53	5.75	1	(b)	4.93
Irish.....	M.							1	(b)	2.96
Total.....	M.	1	(b)	5.17½	1	53	5.75	2	(b)	3.94½

*1 employee furnished also with house, fuel, water, transportation of children to school, and medical attendance.

(b) Irregular.

*1 employee furnished also with house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

*Also house, fuel, water, transportation of children to school, medical attendance, and assistance in case of accident incurred in service.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.
STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS).

[Data for 1900-1901 are for 1 establishment.]

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Blacksmiths:										
American.....	M.	1	53	\$5.00	1	53	\$5.00			
Portuguese.....	M.				1	53	3.00			
Total.....	M.	1	53	5.00	2	53	4.00			
Blacksmiths' helpers:										
Hawaiian.....	M.				1	53	2.50			
Part-Hawaiian.....	M.	1	53	2.50						
Japanese.....	M.				1	53	1.50			
Total.....	M.	1	53	2.50	2	53	2.00			
Boatswains:										
Hawaiian.....	M.				5	66	a 1.72 ¹			
Bookkeeper:										
American.....	M.				1	53	8.33 ¹			
Carpenters:										
American.....	M.				7	53	4.21 ¹	1	54	\$4.50
Hawaiian.....	M.							4	54	2.37
Portuguese.....	M.				4	53	3.29	1	54	3.25
Total.....	M.				11	53	3.88	6	54	2.87
Clerk, coal:										
Hawaiian.....	M.							1	60	b 3.83 ¹
* Clerks, freight:										
American.....	M.							1	(c)	2.50
English.....	M.							2	d 60	b 4.02 ¹
Hawaiian.....	M.				1	66	a 2.30	3	(e)	1.93
Total.....	M.				1	66	a 2.30	6	d 60	b 2.72 ¹
Clerks, office:										
American.....	M.				2	53	5.75			
Clerks, ship:										
American.....	M.				2	66	a 3.37 ¹			
Clerks, store:										
American.....	M.							1	60	5.75
Portuguese.....	M.							1	60	1.84
Total.....	M.							2	60	3.79 ¹
Clerks, wharf:										
American.....	M.				1	66	4.79	1	60	4.79
English.....	M.							1	60	2.68 ¹
Total.....	M.				1	66	4.79	2	60	3.73 ¹
Coal passers:										
American.....	M.	1	72	a 1.53 ¹						
Hawaiian.....	M.	1	72	a 1.53 ¹	3	66	a 1.53 ¹			
Irish.....	M.	1	72	a 1.53 ¹						
Total.....	M.	3	72	a 1.53 ¹	3	66	a 1.53 ¹			
Cooks:										
Chinese.....	M.				21	(e)	a 1.54	17	(e)	a 1.63
Japanese.....	M.							2	(e)	a 1.22 ¹
Spanish.....	M.				2	(e)	a 1.30 ¹	1	(e)	a 1.99 ¹
Total.....	M.				23	(e)	a 1.52	20	(e)	a 1.60 ¹
Cooks' helper:										
Chinese.....	M.				1	(e)	a .50	1	(e)	
Drayman:										
Portuguese.....	M.							1		

a Also board.

b 1 employee receives also board while at sea,
valued at 75 cents per day.

c Irregular.

d Hours reported for 1

e Also board, value^d

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Electricians:										
American	M.				4	53	\$1.91 ^d	1	(a)	\$1.91 ^d
English	M.							1	60	\$1.91 ^d
Hawaiian	M.							1	(a)	1.91 ^d
Total	M.				4	53	1.91 ^d	3	60	\$1.91 ^d
Engineers, assistant:										
American	M.				5	66	\$3.72	12	72	\$3.92 ^d
English	M.				2	66	\$4.02 ^d	4	72	\$3.64 ^d
Greek	M.				1	66	\$4.02 ^d	1	(a)	\$4.02 ^d
Hawaiian	M.							1	(a)	\$4.02 ^d
Portuguese	M.							1	72	\$4.04 ^d
Scotch	M.				1	66	\$4.02 ^d			
Total	M.				9	66	\$3.85 ^d	19	72	\$3.88
Engineers, assistant, first:										
American	M.				7	66	\$3.98			
Engineers, assistant, second:										
American	M.				4	66	\$3.56 ^d			
Engineers, chief:										
American	M.	8	72	\$4.62 ^d	15	66	\$5.05 ^d	10	72	\$5.07
English	M.	1	72	\$3.83 ^d	1	66	\$4.60	3	72	\$5.25
German	M.	1	72	\$3.83 ^d	1	66	\$4.60			
Hawaiian	M.							1	(a)	\$4.98 ^d
Total	M.	10	72	\$4.46 ^d	17	66	\$5.00	14	72	\$5.10
Engineers, donkey engine:										
German	M.				1	66	\$1.91 ^d	1	(a)	\$1.91 ^d
Hawaiian	M.	1	72	\$1.53 ^d	5	66	\$1.75	2	(a)	\$1.75
Japanese	M.							1	(a)	\$1.75
Portuguese	M.							1	(a)	\$1.91 ^d
South Sea Islander	M.							1	(a)	\$1.75
Total	M.	1	72	\$1.53 ^d	6	66	\$1.77 ^d	6	(a)	\$1.80 ^d
Engineer, port:										
Scotch	M.							1	(a)	7.67
Engineers, steamship, second:										
American	M.	5	72	\$3.45						
English	M.	2	72	\$3.83 ^d						
Greek	M.	1	72	\$3.83 ^d						
Scotch	M.	1	72	\$3.83 ^d						
Total	M.	9	72	\$3.62						
Firemen:										
American	M.	3	72	\$1.72 ^d	12	66	\$1.72 ^d			
Chinese	M.	14	72	\$1.49 ^d	28	66	\$1.42	42	(a)	\$1.34
English	M.							1	(a)	\$1.32 ^d
German	M.	1	72	\$1.72 ^d						
Hawaiian	M.							2	(a)	\$1.32 ^d
Part-Hawaiian	M.	2	72	\$1.72 ^d						
Irish	M.	2	72	\$1.72 ^d						
Japanese	M.							2	(a)	\$1.33 ^d
Swedish	M.	1	72	\$1.72 ^d				1	(a)	\$1.32 ^d
Total	M.	23	72	\$1.58 ^d	40	66	\$1.51 ^d	48	(a)	\$1.34

a Irregular.

b Also board, valued at \$25 per month.

c Hours reported for 1 employee only.

d1 employee receives also board, valued at \$25 per month.

e Also board.

f 9 hours per day while in port.

g 9 hours per day while in port.

h 9 hours per day while in port.

i 9 hours per day while in port.

j 9 hours per day while in port.

k 9 hours per day while in port.

l 9 hours per day while in port.

m 9 hours per day while in port.

n 9 hours per day while in port.

o 9 hours per day while in port.

p 9 hours per day while in port.

q 9 hours per day while in port.

r 9 hours per day while in port.

s 9 hours per day while in port.

t 9 hours per day while in port.

u 9 hours per day while in port.

v 9 hours per day while in port.

w 9 hours per day while in port.

x 9 hours per day while in port.

y 9 hours per day while in port.

z 9 hours per day while in port.

Hours reported for 8 employees only.

Hours reported for 1 employee only.

Hours reported for 10 employees only.

Hours reported for 5 employees only.

Hours reported for 6 employees only.

Hours reported for 6 employees only.

Hours reported for 6 employees only.

Hours reported for 6 employees only.

Hours reported for 6 employees only.

Hours reported for 6 employees only.

Hours reported for 6 employees only.

Hours reported for 6 employees only.

Hours reported for 6 employees only.

Hours reported for 6 employees only.

Hours reported for 6 employees only.

Hours reported for 6 employees only.

Hours reported for 6 employees only.

Hours reported for 6 employees only.

Hours reported for 6 employees only.

Hours reported for 6 employees only.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Foreman, stevedores:										
Hawaiian.....	M.	1	53	\$5.36 ^d						
Laborers:										
Hawaiian.....	M.				(a)	66	(a)			
Laborers, carpenters:										
Hawaiian.....	M.				3	53	\$1.75			
Laborers, shop:										
Chinese.....	M.	b 1	53	b .83 ^d	2	53	1.41 ^d			
Hawaiian.....	M.				1	53	1.15			
Part-Hawaiian.....	M.	b 1	53	b .83 ^d						
Japanese.....	M.	4	53	c 1.00						
Total.....	M.	d 6	53	d .94 ^d	3	53	1.32 ^d			
Machinists:										
Hawaiian.....	M.				1	53	4.98 ^d	1	54	\$2.99
Part-Hawaiian.....	M.	1	53	4.00				1	54	3.25
Portuguese.....	M.									
Total.....	M.	1	53	4.00	1	53	4.98 ^d	2	54	3.12
Machinist, assistant:										
Hawaiian.....	M.				1	53	2.68 ^d			
Machinists' helpers:										
Chinese.....	M.	1	53	1.72 ^d						
Japanese.....	M.	1	53	1.25				2	54	1.32 ^d
Total.....	M.	2	53	1.48 ^d				2	54	1.32 ^d
Masters:										
American.....	M.				7	66	c 5.58 ^d	7	e 72	f 5.84 ^d
Dutch.....	M.				1	66	c 5.75			
English.....	M.				1	66	c 5.75	1	(g)	f 5.75
German.....	M.							1	(g)	f 5.75
Hawaiian.....	M.							2	h 72	f 5.74 ^d
Part-Hawaiian.....	M.				3	66	c 5.94			
Irish.....	M.							2	(g)	f 5.75
Norwegian.....	M.							1	(g)	f 5.75
Not reported.....	M.				4	66	c 5.86 ^d			
Total.....	M.				16	66	c 5.61 ^d	14	e 72	f 5.79 ^d
Master, port:										
American.....	M.							1	(g)	9.58 ^d
Master, port, assistant:										
Hawaiian.....	M.							1	(g)	4.79
Mates, first:										
American.....	M.				7	66	c 3.46	6	f 72	f 3.54 ^d
English.....	M.							2	h 72	f 3.64 ^d
German.....	M.							2	(g)	f 3.45
Hawaiian.....	M.							2	h 72	f 3.83 ^d
Part-Hawaiian.....	M.				1	66	c 3.83 ^d			
Norwegian.....	M.							1	(g)	f 3.45
Russian.....	M.							1	(g)	f 3.45
Not reported.....	M.				9	66	c 3.56 ^d			
Total.....	M.				17	66	c 3.43	14	e 72	f 3.53 ^d

a Not reported.

b Boy.

c Also board.

d See notes to details.

e 9 hours per day while in port. Hours reported for 3 employees only.

f Also board, valued at \$25 per month.

g Irregular.

h 8 hours per day while in port. Hours reported for 1 employee only.

i 9 hours per day while in port. Hours reported for 6 employees only.

j 9 hours per day while in port. Hours reported for 3 employees only.

k 9 hours per day while in port.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Mates, second:										
American.....	M.				7	66	\$2.91 ^d	3	67 ^d	\$2.91 ^d
English.....	M.							2	(d)	\$2.87 ^d
Hawaiian.....	M.							6	72 ^e	\$2.89 ^d
Part-Hawaiian.....	M.				8	66	\$2.30			
Irish.....	M.							3	(d)	\$2.87 ^d
Total.....	M.				15	66	\$2.58 ^d	14	72 ^d	\$2.89
Mates, third:										
Part-Hawaiian.....	M.				1	66	\$1.72 ^d			
Russian.....	M.							1	(d)	\$2.49
Swedish.....	M.				1	66	\$1.72 ^d			
Total.....	M.				2	66	\$1.72 ^d	1	(d)	\$2.49
Officers:										
American.....	M.	4	72	\$1.72 ^d	4	66	\$1.72 ^d	2	(d)	\$1.72 ^d
German.....	M.	1	72	\$1.72 ^d	1	66	\$1.72 ^d			
Hawaiian.....	M.							2	(d)	\$1.72 ^d
Irish.....	M.	2	72	\$1.72 ^d	2	66	\$1.72 ^d			
Total.....	M.	7	72	\$1.72 ^d	7	66	\$1.72 ^d	4	(d)	\$1.72 ^d
Pantry men:										
Chinese.....	M.							2	(d)	\$1.16 ^d
Pursers:										
American.....	M.				6	66	\$3.07	10	(d)	\$2.68 ^d
English.....	M.							2	(d)	\$2.60 ^d
Hawaiian.....	M.				8	66	\$2.34 ^d	1	(d)	\$2.30
Part-Hawaiian.....	M.				1	66	\$4.83 ^d	2	(d)	\$4.05 ^d
Total.....	M.				15	66	\$2.80	15	(d)	\$2.83
Quartermasters:										
American.....	M.				1	66	\$1.33 ^d	2	(d)	\$1.33 ^d
American negro.....	M.							1	(d)	\$1.33 ^d
Australian.....	M.							1	(d)	\$1.15
English.....	M.							2	(d)	\$1.24 ^d
Filipino.....	M.							3	(d)	\$1.33 ^d
German.....	M.							1	(d)	\$1.15 ^d
Hawaiian.....	M.				16	66	\$1.24 ^d			
Japanese.....	M.				1	66	\$1.33 ^d	2	(d)	\$1.33 ^d
Norwegian.....	M.				1	66	\$1.33 ^d	1	(d)	\$1.15
Portuguese.....	M.				3	66	\$1.33 ^d	2	(d)	\$1.33 ^d
Spanish.....	M.							1	(d)	\$1.33 ^d
Swedish.....	M.							1	(d)	\$1.15
Total.....	M.				22	66	\$1.27	17	(d)	\$1.28
Sailors:										
American.....	M.							1	72	\$1.83 ^d
Hawaiian.....	M.				259	66	\$1.10	231	72	\$1.00
Japanese.....	M.				115	66	\$1.09 ^d	93	72	\$1.95 ^d
South Sea Islander.....	M.							1	72	\$1.83 ^d
Total.....	M.				374	66	\$1.10	325	72	\$1.98 ^d

* Also board.

b 9 hours per day while in port.

c Also board, valued at \$25 per month.

d Irregular.

e 9 hours per day while in port. Hours reported for 3 employees only.

f 9 hours per day while in port. Hours reported for 6 employees only.

g Also board, valued at \$10 per month.

h Receive \$1.50 per day while in port; receive also board, valued at \$10 per month.

i Receive \$1.50 per day while in port; receive also board, valued at \$10 per month; 29 employees

act as petty officers while at sea.

j Receive \$1.50 per day while in port; receive also board, valued at \$10 per month; 6 employees act

as petty officers while at sea.

k See notes to details.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

STEAMSHIP COMPANIES, INTERISLAND (2 ESTABLISHMENTS)—Concluded.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Shipwright:										
American.....	M.							1	60	\$7.67
Statistician:										
American.....	M.				1	53	\$3.33 ^a			
Stenographer:										
American.....	F.							1	60	2.30
Part-Hawaiian.....	M.				1	53	2.83 ^a			
Steyedores:										
Hawaiian.....	M.	24	53	\$2.00						
Part-Hawaiian.....	M.	6	53	2.00						
Japanese.....	M.	22	53	1.00						
Portuguese.....	M.	9	53	2.00						
Total.....	M.	61	53	1.64						
Stewards:										
Chinese.....	M.				14	66	\$1.68	15	(b)	\$1.70 ^a
East Indian.....	M.				1	66	\$2.00			
Japanese.....	M.							1	(b)	\$1.16 ^a
Portuguese.....	M.				1	66	\$2.00	1	(b)	\$1.66 ^a
Spanish.....	M.				2	66	\$2.07	2	(b)	\$1.82
Total.....	M.				18	66	\$1.76	19	(b)	\$1.68 ^a
Steward, port:										
American.....	M.				1	(b)	2.30			
Stock keeper:										
Part-Hawaiian.....	M.	1	53	2.87 ^a						
Superintendent, engineers:										
American.....	M.				1	(b)	9.58 ^a			
Superintendents, wharf:										
American.....	M.				2	d 66	8.62 ^a			
Waiters:										
Chinese.....	M.				24	(b)	\$1.01 ^a	24	(b)	\$.96 ^a
Japanese.....	M.				11	(b)	\$1.05 ^a	1	(b)	\$.99 ^a
Portuguese.....	M.				2	(b)	\$1.00			
Spanish.....	M.							2	(b)	\$.99 ^a
Total.....	M.				37	(b)	\$1.02 ^a	27	(b)	\$.97
Watchmen:										
American.....	M.							1		2.14 ^a
German.....	M.							1	84	.98 ^a
Norwegian.....	M.							1	84	1.97 ^a
Portuguese.....	M.							1	72	\$1.00
Total.....	M.							4	81	\$1.52 ^a

STOCK RANCHES (2 ESTABLISHMENTS).

[Data for 1902 are for 3 establishments.]

Blacksmith:										
Part-Hawaiian.....	M.							1	60	\$50.96
Bookkeeper:										
Part-Hawaiian.....	M.							1	60	\$3.83 ^a
Butcher:										
Chinese.....	M.				1	66	\$1.15			
Carpenter:										
Hawaiian.....	M.							1	60	\$.96
Cook:										
Chinese.....	M.				1	70	.72 ^a	1	70	\$.66

^a Also board.^b Irregular.^c Also board, valued at \$25 per month.^d Hours reported for 1 employee only.^e Also board, valued at \$10 per month.^f 1 employee receives also board, valued at \$10 per month.^g Also beef and pol.^h Also beef.ⁱ Also house and board, valued at \$10 per month.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

STOCK RANCHES (2 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Cowboys:										
Hawaiian.....	M.							23	84	\$0.77
Dairymen:										
Chinese.....	M.				1	77	\$1.15			
Hawaiian.....	M.							1	84	d. 82
Japanese.....	M.							5	(e)	f. 704
Total.....	M.				1	77	c 1.15	6	84	h. 724
Fence men:										
American.....	M.							1	(e)	1.00
Hawaiian.....	M.							5	g 60	i. 854
Total.....	M.							6	g 60	i. 874
Foremen, cowboys:										
Hawaiian.....	M.							3	84	j 1.28
Foreman, fence men:										
Hawaiian.....	M.							1	(e)	k 1.344
Foreman, foresters:										
German.....	M.							1	(e)	k 1.314
Foreman, horse boys:										
American.....	M.							1	(e)	k 1.924
Foreman, land cleaners:										
Hawaiian.....	M.							1	(e)	k. 69
Foreman, sheep herders:										
English.....	M.							1	(e)	3.29
Foreman, teamsters:										
German.....	M.							1	(e)	l 1.314
Forester:										
Part-Hawaiian.....	M.							1	(e)	k. 69
Harness maker:										
Hawaiian.....	M.							1	60	k 1.344
Horse boys:										
Hawaiian.....	M.							4	(e)	k. 624
House boy:										
Japanese.....	M.							1	70	m. 46
Laborers:										
Japanese.....	M.							2	60	m. 424
Land cleaners:										
Japanese.....	M.							39	60	n. 69
Overseers:										
American.....	M.				1	84	3.29			
Hawaiian.....	M.				4	64.3	o 1.094			
Irish.....	M.				1	60	1.154			
Total.....	M.				6	66.8	o 1.47			
Shearers:										
Hawaiian.....	M.				39	72	c 1.00			

a Hours reported for 11 employees only.

b Including 1 boy. 16 employees receive also beef and poi; 6 furnished also with house and board, valued at \$10 per month; 5 receive also food when on the mountain.

c Also board.

d Also house and board, valued at \$10 per month.

e Irregular.

f Also house, beef, and rice.

g Hours reported for 1 employee only.

h See notes to details.

i 3 employees receive also beef and poi; 1 is furnished with house and board, valued at \$10 per month.

j 2 employees receive also beef and poi, and 1 is furnished with house and board, valued at \$10 per month.

k Receive also beef and poi.

l Also house.

m Also house and board, valued at \$10 per month.

n Also house and beef.

o 1 employee receives also board.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

STOCK RANCHES (2 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Sheep herders:										
Chinese	M.							2	(a)	\$1.00
Hawaiian	M.							1	(a)	1.00
Japanese	M.							1	(a)	.92 ^d
Portuguese	M.							1	(a)	1.00
Total	M.							5	(a)	.98 ^d
Stablemen:										
Hawaiian	M.							2	(a)	b.57 ^d
Japanese	M.							2	(a)	c.69
Total	M.							4	(a)	d.63 ^d
Stock herders:										
Hawaiian	M.				53	83.2	\$30.49 ^d			
Japanese	M.				14	70	.65 ^d			
Japanese	F.				2	70	.33			
Portuguese	M.				1	70	.79			
Total					70	80	f.52 ^d			
Teamsters:										
German	M.							1	(a)	\$1.00
Hawaiian	M.							2	(a)	g.84 ^d
Total	M.							3	(a)	g.89 ^d
Yard boys:										
Chinese	M.							1	(a)	g.25
Japanese	M.							4	h.70	i.62 ^d
Total	M.							5	h.70	d.54 ^d

STREET RAILWAY (1 ESTABLISHMENT).

Blacksmith:										
Portuguese	M.				1	54	\$3.00	1	54	\$3.00
Blacksmith's helpers:										
Portuguese	M.				2	54	1.50	1	54	1.75
Bookkeeper:										
American	M.				1	48	5.75			
Car cleaners:										
Chinese	M.				2	54	1.25	3	54	1.27 ^d
Carpenters:										
American	M.				1	54	4.00			
Canadian	M.							1	54	4.79
Scotch	M.							1	54	3.50
Total	M.				1	54	4.00	2	54	4.14 ^d
Car receivers:										
American	M.				1	77	2.46 ^d			
English	M.							1	77	3.29
Cashier:										
Scotch	M.							1	63	4.93

a Irregular.

b Including 1 boy. Receive also beef and poi.

c Also beef.

d See notes to details.

e Including 2 boys; receive also board.

f Including 2 boys; 53 employees receive also board.

g Also beef and poi.

h Hours reported for 1 employee only.

i 11 employee furnished also with house and board, valued at \$10 per month, and 3 receive also beef.

TABLE III.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

STREET RAILWAY (1 ESTABLISHMENT)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Conductors:										
American	M.				24	63	\$2.70	28	63	\$2.70
Canadian	M.				1	63	2.70	1	63	2.70
Danish	M.							2	63	2.70
English	M.				3	63	2.70	4	63	2.70
German	M.				1	63	2.70	2	63	2.70
Hawaiian	M.				3	63	2.70	4	63	2.70
Irish	M.				1	63	2.70	2	63	2.70
Norwegian	M.							1	63	2.70
Portuguese	M.							2	63	2.70
Scotch	M.				2	63	2.70	4	63	2.70
Total	M.				35	63	2.70	50	63	2.70
Draymen:										
Portuguese	M.				2	54	1.50			
Electrician:										
American	M.							1	63	5.75½
Engineers, civil:										
American	M.				2	54	3.89½			
Engineer, civil, assistant:										
Portuguese	M.				1	54	2.50			
Engineers, power house:										
American	M.				1	63	2.46½	2	63	3.53½
English	M.				1	63	4.11			
Total	M.				2	63	3.28½	2	63	3.53½
Engineer, power house, chief:										
American	M.							1	56	5.92
English	M.				1	56	6.00			
Engineer, rock crusher:										
American	M.				1	54	3.50			
Firemen, power house:										
American	M.				2	63	2.46½	2	63	2.46½
Fireman, rock crusher:										
Japanese	M.				1	54	1.25			
Foreman, linemen:										
American	M.				1	54	6.71			
Foreman, rock crusher:										
Part-Hawaiian	M.				1	54	3.50			
Foremen, shop:										
American	M.				2	70	3.61½			
Foreman, track:										
American	M.				1	63	6.00			
Laborer:										
Portuguese	M.							1	54	1.50
Laborers, rock crusher:										
Japanese	M.				30	54	1.00			
Laborers, track:										
American	M.				6	54	1.75			
Japanese	M.				104	54	1.50			
Total	M.				110	54	1.61½			
Linemen:										
Hawaiian	M.				1	54	3.00			
Swedish	M.				3	54	2.83½	2	54	2.78
Total	M.				4	54	2.87½	2	54	2.78
Machinists:										
American	M.				2	70	2.40½	2	70	3.61½
Hawaiian	M.				1	70	2.46½			
Swedish	M.				1	70	2.96	3	70	2.74
Total	M.				4	70	2.50½	5	70	3.09

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Blacksmiths:										
American	M.	15	59.8	\$3.72	18	60	\$3.82 ^a	11	59.4	\$4.13 ^a
Canadian	M.	1	59	3.65 ^b						
Chinese	M.	1	60	1.00	1	60	1.53 ^c			
English	M.	1	60	4.61 ^d	1	60	4.60	1	59	4.60
French	M.	1	60	4.57 ^e	1	60	4.56			
German	M.	5	59.4	3.47	5	60	3.22	4	59	4.08 ^f
Hawaiian	M.	1	62	2.69	9	60	2.12	8	60.6	1.88
Part-Hawaiian	M.	4	59.5	2.94 ^g	3	60	2.39	4	60.3	2.63
Irish	M.	1	60	3.75						
Japanese	M.	14	59.9	1.50	18	60	1.63 ^h	10	60.8	1.54
New Zealander	M.	1	60	4.00						
Norwegian	M.				2	60	2.40	1	62	2.37 ⁱ
Polish	M.	4	59.3	2.08 ^j	1	60	1.72 ^k			
Porto Rican	M.				1	60	.89 ^l	1	59	1.50
Portuguese	M.	8	59.6	2.37 ^m	10	60	2.61 ⁿ	9	58.7	2.97
Russian	M.							1	59	2.00
Scotch	M.	12	60	4.16	10	60	4.33	12	59.3	4.25
Swedish	M.				1	60	1.91 ^o			
West Indian negro	M.				1	60	.92 ^p			
Total	M.	69	59.8	3.00 ^q	82	60	2.81 ^r	62	59.7	3.07
Blacksmiths' helpers:										
American	M.	1	60	1.00	2	60	.84 ^s	2	59	.80
Chinese	M.	2	60	1.85 ^t	1	60	1.25			
French	M.	1	60	1.15 ^u						
German	M.	3	59	.84 ^v	2	60	1.32 ^w	2	59	1.67 ^x
Hawaiian	M.	3	60	.97	5	60	1.14	15	59.7	1.20
Part-Hawaiian	M.	1	59	.96	1	60	.84 ^y	1	60	1.00
Hawaiian, white	M.	1	59	.67 ^z						
Japanese	M.	68	59.7	.88	71	60	.95	84	59.3	.99 ^{aa}
Polish	M.	2	60	1.00						
Porto Rican	M.				2	60	.94 ^{ab}	1	62	1.00
Portuguese	M.	16	60	1.06 ^{ac}	16	60	1.07 ^{ad}	12	59.3	1.84 ^{ae}
Total	M.	98	59.8	.91 ^{af}	100	60	1.08 ^{ag}	117	59.4	1.00
Blacksmith and carpenter:										
Hawaiian	M.	1	59	1.50						
Blacksmith and carpenter's helper										
Part-Hawaiian	M.	1	59	1.00						
Boatmen:										
Hawaiian	M.				10	60	2.00	15	59.4	1.81
Portuguese	M.							1	59	1.75
Total	M.				10	60	2.00	16	59.3	1.80 ^{ah}
Boiler makers:										
American	M.	5	59.4	5.11	4	60.8	5.52 ^{ai}	1	48	5.00
English	M.	2	59	4.50						
Hawaiian	M.	1	60	3.69	1	60	3.75			
Part-Hawaiian	M.							1	60	3.83 ^{aj}
Irish	M.	1	59	5.50 ^{ak}	1	54	6.00 ^{al}			
Japanese	M.	4	59	2.18 ^{am}	6	60	1.58 ^{an}	1	59	1.50
Scotch	M.	1	60	5.77	1	60	5.00 ^{ao}			
Total	M.	14	59.3	4.16 ^{ap}	13	59.8	3.56 ^{aq}	3	55.7	3.44 ^{ar}

^a 2 employees receive also a bonus.^b Hours reported for 7 employees only.^c Hours reported for 3 employees only.^d 1 employee receives also board, valued at \$20 per month.^e Hours reported for 60 employees only.^f Including 1 boy.^g Including 2 boys.^h Including 4 boys.ⁱ See notes to details.^j Hours reported for 5 employees only.^k Hours reported for 6 employees only.^l 3 employees receive also bonus.

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TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Brakemen, railroad (concluded):										
Porto Rican.....	M.				1	60	\$0.92 ^a			
Portuguese.....	M.	36	470.1	\$0.83	13	60	.93 ^a	632	68.1	\$0.96 ^d
Samoan.....	M.							2	72	1.00
Total.....	M.	74	465.5	.88	23	60	1.00	633	68.6	1.96
Bricklayers:										
American.....	M.	8	59.4	7.29	1	60	7.00			
English.....	M.	1	60	7.77						
Irish.....	M.	2	60	7.77						
Japanese.....	M.				1	60	1.25	1	60	1.75
Portuguese.....	M.	1	59	1.54				2	62.5	1.88 ^d
Total.....	M.	12	59.5	6.93	2	60	4.12 ^d	3	61.7	1.50 ^d
Bricklayers' helpers:										
Japanese.....	M.	27	59.4	.78				3	60	1.00
Butchers:										
American.....	M.							1	60	3.06 ^d
American negro.....	M.				2	(^g)	1.57 ^d			
Chinese.....	M.							1	(^g)	1.50
Hawaiian.....	M.				3	(^g)	1.23 ^d	3	65	1.06 ^d
Japanese.....	M.							1	59	1.00
Portuguese.....	M.				1	(^g)	1.00	3	75.7	1.61
Total.....	M.				6	(^g)	1.31	9	68	1.51
Butchers' helpers:										
Japanese.....	M.							2	72	.98 ^d
Camp cleaners:										
Japanese.....	M.							3	60	.69
Japanese.....	F.							12	21	.19
Porto Rican.....	M.							4	60	.63 ^d
Total.....								19	35.4	.36
Cane cutters:										
Chinese.....	M.	1,036	460	.96 ^d	255	160	.89 ^d	2,029	56.2	1.84 ^d
Chinese and Japanese.....	M.				285	(^g)	(^g)			
Hawaiian.....	M.							33	60.3	.73 ^d
Japanese.....	M.	829	59.7	.89	1,153	960	.78	3,417	59.3	1.70 ^d
Japanese.....	F.							4	59.9	.38 ^d
Korean.....	M.							828	58.7	1.66 ^d
Porto Rican.....	M.				30	60	.79 ^d	371	59.9	1.74

^a Hours reported for 34 employees only.^b Including 1 boy.^c Hours reported for 31 employees only.^d Hours reported for 72 employees only.^e Hours reported for 78 employees only.^f See notes to details.^g Irregular.^h Hours reported for 2 employees only.ⁱ Including estimated earnings of 1 employee.^j Hours reported for 7 employees only.^k Hours reported for 33 employees only.^l Hours reported for 4 employees only.^m Hours reported for 1,336 employees only.ⁿ Wages reported for 1,640 employees only, including 1,004 contract workers.^o 194 cents per ton.^p Hours reported for 127 employees only.^q Hours reported for 413 employees only.^r Hours reported for 3,079 employees only.^s Wages reported for 3,252 employees only, including 792 contract workers.^t Hours reported for 616 employees only.^u Wages reported for 673 employees only.^v Hours reported for 29 employees only.^w Including 2 boys.^x Hours reported for 312 employees only.^y Including 2 boys; also 59 contract workers; 9 employees receive also 2

days worked.

^z cents for every 6

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Cane cutters (concluded):										
Portuguese.....	M.	.....	.....	.....	16	60	\$0.95	538	58.0	\$3.85
South Sea Islander.....	M.	.....	.....	.....	9	60	.69	10	60	.65
Total.....		1,865	550.8	\$0.93	1,743	600	d.80	5,750	f58.5	v.73
Cane cutters and loaders:										
Japanese.....	M.	978	(h)	.98	478	(i)	.94	.....	.....	.....
Japanese.....	F.	.....	.....	.....	24	(j)	(h)	.....	.....	.....
Porto Rican.....	M.	.....	.....	.....	.....	.....	.....	50	(j)	.70
Total.....		978	(h)	.98	492	(i)	\$1.94	50	(j)	.70
Cane hoers:										
Japanese.....	M.	35	(h)	.75	.....	.....	.....	.....	.....	.....
Cane loaders:										
Chinese.....	M.	15	(h)	.95	43	(h)	1.00	.....	.....	.....
Hawaiian.....	M.	5	(h)	1.67	.....	.....	.....	16	58.7	f.82
Japanese.....	M.	1,450	m60	.98	1,196	n60	.90	2,918	o57.9	p.94
Japanese.....	F.	.....	.....	.....	81	q60	.71	53	65.8	r.61
Korean.....	M.	.....	.....	.....	.....	.....	.....	218	s58.2	t.81
Porto Rican.....	M.	.....	.....	.....	.....	.....	.....	43	u59.2	v.97
Portuguese.....	M.	.....	.....	.....	21	61.7	1.01	7	55.4	w1.26
Total.....		1,470	m60	.98	1,251	n60.1	.90	3,285	v57.8	x.93
Cane loaders and runners:										
Japanese.....	M.	31	(h)	1.00	.....	.....	.....	.....	.....	.....
Cane planters:										
Japanese.....	M.	95	(h)	.85	.....	.....	.....	.....	.....	.....
Cane strippers:										
Chinese.....	M.	39	(h)	.91	.....	.....	.....	.....	.....	.....
Japanese.....	M.	253	(h)	.82	.....	.....	.....	.....	.....	.....
Total.....	M.	292	(h)	.83	.....	.....	.....	.....	.....	.....
Cane weighers:										
American.....	M.	1	72	1.84	2	66	1.91	4	72	2.34
Australian.....	M.	.....	.....	.....	1	72	1.91	.....	.....	.....
Canadian.....	M.	2	71	1.73	1	72	1.91	.....	.....	.....
Chinese.....	M.	.....	.....	.....	.....	.....	.....	2	72	1.84
English.....	M.	.....	.....	.....	.....	.....	.....	1	72	2.30
German.....	M.	2	72	1.82	4	72	1.83	3	71	1.60
Hawaiian.....	M.	3	71.7	1.05	2	66	1.34	18	71.2	1.67
Part-Hawaiian.....	M.	1	70	.81	1	72	1.34	3	72	1.41
Japanese.....	M.	4	71.8	.80	5	67.2	.94	17	72	.78

a Including 1 boy.

b Hours reported for 160 employees only.

c Hours reported for 462 employees only.

d Wages reported for 1,163 employees only.

e Including 3 boys.

f Hours reported for 5,448 employees only.

g Wages reported for 6,041 employees only, including 1,855 contract workers and 3 boys.

h Not reported.

i Hours reported for 80 employees only.

j Irregular.

k Wages reported for 478 employees only.

l Including 3 contract workers.

m Hours reported for 101 employees only.

n Hours reported for 311 employees only.

o Hours reported for 1,808 employees only.

p Wages reported for 2,597 employees only, including 1,815 contract workers.

q Hours reported for 6 employees only.

r Contract workers.

s Hours reported for 166 employees only.

t Wages reported for 236 employees only, including 112 contract workers.

u Hours reported for 26 employees only.

v Including 18 contract workers.

w Including 5 contract workers.

x Hours reported for 338 employees only.

y Hours reported for 2,076 employees only.

z Wages reported for 2,932 employees only, including 2,006 contract workers.

TABLE III.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Average hours per week.	Average wages per day.	Em- ploy- ees.	Average hours per week.	Average wages per day.	Em- ploy- ees.	Average hours per week.	Average wages per day.
Cane weighers (concluded):										
Norwegian.....	M.							1	72	\$2.49
Portuguese.....	M.	5	71.6	\$0.974	7	72	\$1.13	11	63.7	1.13
Scotch.....	M.							3	72	2.364
South Sea Islander.....	M.							1		1.724
Total.....	M.	18	71.6	1.084	23	69.9	1.374	64	71.3	1.244
Carpenters:										
American.....	M.	13	60	3.674	11	60	a 4.384	13	59.7	4.00
Canadian.....	M.	1	60	3.844	2	60	3.914	2	59.5	3.834
Chinese.....	M.	43	60	1.61	24	60	1.56	3	59.3	1.49
English.....	M.				1	60	5.75	2	65.5	5.364
Filipino.....	M.				1	60	2.00	1	59	1.75
German.....	M.	5	59.2	2.36	6	60	3.51	6	59.3	3.02
Hawaiian.....	M.	22	59.6	1.734	23	60	1.494	13	59.7	1.60
Part-Hawaiian.....	M.	11	60.6	2.73	4	60	3.524	1	60	2.11
Hawaiian, white.....	M.	61	59	b 5.574						
Irish.....	M.	2	60	4.06						
Japanese.....	M.	e 317	59.7	e 1.09	322	60	1.17	67	59.6	1.37
New Zealander.....	M.	2	60	4.614						
Norwegian.....	M.	2	60	4.00				3	59.2	2.164
Porto Rican.....	M.				5	60	1.03	1	59	1.914
Portuguese.....	M.	d 38	59.5	d 1.544	34	60	1.98	18	59.3	2.41
Scotch.....	M.	2	59.5	2.904	5	60	3.69	3	59.3	4.33
South Sea Islander.....	M.				1	60	4.984			
Spanish.....	M.	1	60	2.25						
Swedish.....	M.	2	61	3.064				1	59.5	4.79
Swiss.....	M.							1	62	2.49
Welsh.....	M.	1	60	5.00						
West Indian negro.....	M.				1	60	2.00			
Total.....	M.	e 663	59.7	e 1.31	440	60	a 1.47	135	59.6	2.084
Carpenters' helpers:										
Chinese.....	M.				e 2	60	e .694	6	59.3	1.00
German.....	M.				1	60	1.344	b 1	59	b .77
Hawaiian.....	M.				2	60	.764	7	60	1.29
Japanese.....	M.				105	60	1.034	327	59.5	.954
Norwegian.....	M.				1	60	1.154			
Porto Rican.....	M.				c 3	60	e .744			
Portuguese.....	M.				e 5	60	e .954	e 21	60.6	e 1.094
Total.....	M.				e 119	60	e 1.02	e 362	59.6	e .97
Cashier:										
American.....	M.							1	60	5.364
Chemists:										
American.....	M.	5	f 71.7	a 6.14	5	(g)	a 6.184	8	70.4	6.43
Australian.....	M.	1	72	5.75						
Canadian.....	M.	1	(g)	3.834	1	(g)	4.79	2	65.8	4.794
Dutch.....	M.	1	72	5.75	1	(g)	6.71	1	72	8.624
English.....	M.				1	(g)	5.75			
German.....	M.	3	(g)	3.514	4	(g)	6.74	5	68.8	a 7.04
Hawaiian, white.....	M.	1	71	f 5.364						
Italian.....	M.							1	72	7.67
Scotch.....	M.	1	(g)	3.834	1	(g)	3.834	1	72	(f)
Swedish.....	M.				1	(g)	13.80			
Swiss.....	M.	1	(g)	3.834						
Total.....	M.	14	k 71.7	e 4.97	14	(g)	a 6.624	18	69.7	f 6.62

a 1 employee receives also share of net profits.

b Boy.

c Including 1 boy.

d Including 3 boys.

e See notes to details.

f Hours reported for 3 employees only.

g Irregular.

h Including 1 employee who receives salary from two establishments.

i Also share of net profits.

j Receives \$1,300 per crop.

k Hours reported for 8 employees only.

l Average wages of 17 employees. See notes to details.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Chemists' assistants:										
American	M.				1	(a)	\$5.75	4	69	\$3.494
English	M.				1	(a)	2.30			
German	M.	1	72	\$3.834				b3	67.8	\$2.134
Japanese	M.							1	72	2.50
Total	M.	1	72	3.834	2	(a)	4.024	b8	68.9	\$2.86
Chemists' helpers:										
American	M.							b2	72	\$.994
Chinese	M.				1	(a)	.96	3	72	.95
German	M.				c1	(a)	e.384			
Japanese	M.				1	(a)	.81	24	71	.86
Total	M.				b3	(a)	b.72	b29	71.2	b.874
Clerk, field:										
American	M.							1	60	1.914
Clerks, freight:										
American	M.	2	(a)	2.394	b3	60	b2.174	1	72	1.924
English	M.				1	60	2.11			
Hawaiian	M.							1	72	2.164
Jamaican	M.				1	60	d1.344			
Japanese	M.							1	69	.77
Russian	M.	1	(a)	1.634						
Total	M.	3	(a)	2.11	b5	60	e1.994	3	67.7	1.62
Clerks, mill:										
American	M.				1	72	2.304			
English	M.							1	72	d1.344
Hawaiian	M.	1	72	1.64	2	72	1.91	1	72	1.154
Japanese	M.				1	72	1.914			
Total	M.	1	72	1.64	4	72	2.014	2	72	f1.25
Clerks, shipping:										
German	M.	2	72	1.074						
Part-Hawaiian	M.	1	72	2.30						
Total	M.	3	72	1.484						
Clerk, statistical:										
American	M.							1	60	3.064
Clerks, store:										
American	M.	b10	72	b3.03	7	60	2.60	b9	70.6	g2.47
Canadian	M.				2	60	2.774			
Chinese	M.	7	72	1.064	10	h61.3	1.17	3	66	1.41
English	M.				1	60	1.154	1	72	4.79
German	M.				1	72	3.834	1	72	3.834
Hawaiian	M.				3	60	1.47	5	72	1.984
Part-Hawaiian	M.	1	72	.77	2	60	.964	2	72	3.064
Hawaiian, white	M.	1	72	2.30						
Japanese	M.	70	i72.7	j1.02	b101	k60.5	l1.05	m98	68.6	n1.09
Japanese	F.				1	60	e.574			
Korean	M.							5	p68.9	.82

a Irregular.

b Including 1 boy.

c Boy.

d Also share of net profits.

e See notes to details.

f 1 employee receives also share of net profits.

g Including 1 boy; 1 employee receives also share of net profits.

h Hours reported for 9 employees only.

i Hours reported for 69 employees only.

j 4 employees receive also share of net profits.

k Hours reported for 98 employees only.

l Including 1 boy; 3 employees receive also share of net profits.

m Including 3 boys.

n Including 3 boys; 7 employees receive also share of net profits.

o Also share of net profits.

p Hours reported for 4 employees only.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Average hours per week.	Average wages per day.	Em- ploy- ees.	Average hours per week.	Average wages per day.	Em- ploy- ees.	Average hours per week.	Average wages per day.
Clerks, store (concluded):										
New Zealander	M.	1	72	\$2.22 ¹						
Norwegian	F.				1	60	\$1.15 ¹			
Porto Rican	M.				3	60	1.62 ¹	44	68.9	\$0.97 ¹
Portuguese	M.	621	72	\$1.16 ¹	457	61.4	1.40 ¹	25	69.2	1.17 ¹
Scotch	M.	1	72	2.68 ¹	3	60	2.36 ¹	2	59.3	2.87 ¹
Spanish	M.	1	72	1.91 ¹	1	72	2.30			
Total		713	72.4	1.27	473	60.6	1.27	155	68.9	1.29 ¹
Clerks, sugar:										
American	M.				1	72	2.11	5	69.6	2.35 ¹
Chinese	M.							1	60	1.00
German	M.				1	72	1.91 ¹	2	71	.92 ¹
Hawaiian	M.				1	72	2.30	1	72	1.50
Part-Hawaiian	M.							1	72	1.91 ¹
Japanese	M.							1	72	1.34 ¹
Portuguese	M.							5	66.6	1.22
Scotch	M.							1	72	1.91 ¹
Total	M.				3	72	2.11	17	68.9	1.61
Clerks, wharf:										
American	M.				4	60	3.02			
Canadian	M.				1	60	1.53 ¹			
Portuguese	M.							1	60	1.72 ¹
Scotch	M.				2	60	2.10 ¹			
Total	M.				7	60	2.54 ¹	1	60	1.72 ¹
Coachmen:										
American negro	M.				1	(p)	1.15			
Portuguese	M.							1	70	1.15
Coal passers:										
Chinese	M.	18	84	.92 ¹	18	60	1.00			
Hawaiian	M.							4	72	.77
Japanese	M.	23	83	.80	30	60	.88 ¹	110	61	.83 ¹
Porto Rican	M.				1	60	.94			
Portuguese	M.							1	59.5	1.00
Total	M.	41	83.4	.85 ¹	49	60	.93	115	61.4	.83 ¹
Coal weigher:										
German	M.				1	72	1.53 ¹			
Contract cultivators:										
American	M.							2	(p)	(q)
Chinese	M.				1,884	60	1.94	689	62.9	1.84
Hawaiian	M.				40	61.7	1.84 ¹	6	57	(2)
Hawaiian	F.				2	66	1.77			

a Including 1 boy.

b Including 3 boys.

c Including 3 boys; 3 employees receive also share of net profits.

d Including 5 boys.

e Hours reported for 34 employees only.

f Including 5 boys; 1 employee receives also share of net profits.

g Including 4 boys.

h Including 4 boys; 4 employees receive also share of net profits.

i 1 employee receives also share of net profits.

j Hours reported for 112 employees only.

k See notes to details.

l Hours reported for 166 employees only.

m Hours reported for 154 employees only.

n Also board.

o 1 employee receives also board.

p Irregular.

q Not reported.

r Estimate; wages reported for 1,780 employees only.

s Hours reported for 93 employees only.

t Estimate; wages reported for 199 employees only.

u Estimate.

v Hours reported for 4 employees only.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Contract cultivators (concluded):										
Japanese.....	M.				8,160	60	\$1.01	4,491	661.6	\$0.84
Japanese.....	F.				59	60.5	\$.914	47	57	\$1.16
Korean.....	M.							460	500.9	\$.74
Porto Rican.....	M.				23	60	\$1.00	139	59.5	\$.81
Porto Rican.....	F.							2	(k)	(l)
Portuguese.....	M.				60	60	\$.922	6	(k)	\$.92
Portuguese.....	F.							4	(k)	\$.92
Total.....					10,299	60	\$.991	5,846	61.4	\$.83
Cooks:										
Chinese.....	M.				19	(k)	.754	14	70	\$.794
Japanese.....	M.				8	(k)	.734	11	70	\$.69
Japanese.....	F.							8	70	\$.42
Korean.....	F.							2	70	\$.42
Total.....					27	(k)	.754	35	70	\$.65
Cooks' helpers:										
Chinese.....	M.				1	(k)	.59			
Japanese.....	M.				1	(k)	.33			
Total.....	M.				2	(k)	.46			
Dairymen:										
Japanese.....	M.							1	70	1.00
Portuguese.....	M.				1	70	1.15			
Ditch diggers:										
Japanese.....	M.	26	(l)	\$1.00						
Ditch men:										
Chinese.....	M.	4	59.5	.804	50	60	1.04	9	62.7	.794
German.....	M.				1	60	.844			
Hawaiian.....	M.	7	59.4	.804	31	60	\$.90	14	62.5	.83
Port-Hawaiian.....	M.				1	60	1.724			
Japanese.....	M.	60	62.4	.884	328	60	.88	191	65.3	.854
Japanese.....	F.							8	61.1	.54
Korean.....	M.							1	59.5	.77
Norwegian.....	M.				1	60	1.724			
Portuguese.....	M.	26	63.1	\$1.234	34	60	\$1.36	9	60	1.104
Swedish.....	M.				1	60	3.834			
Total.....		97	62.2	\$.97	447	60	\$.944	232	64.7	.85

a Estimate; wages reported for 7,383 employees only.

b Hours reported for 457 employees only.

c Estimate; wages reported for 2,726 employees only.

d Estimate.

e Hours reported for 1 employee only.

f Estimate; wages reported for 2 employees only.

g Hours reported for 309 employees only.

h Estimate; wages reported for 440 employees only.

i Hours reported for 46 employees only.

j Estimate; wages reported for 71 employees only.

k Irregular.

l Not reported.

m Estimate; wages reported for 1 employee only.

n Estimate; wages reported for 9,347 employees only.

o Hours reported for 910 employees only.

p Estimate; wages reported for 3,443 employees only.

q Hours reported for 13 employees only.

r 4 employees receive also board, valued at \$10 per month; 3 receive also board, value not reported;

1 receives also profits of boarding house, and 1 receives also food.

s 2 employees receive also food; 2 receive also board, valued at \$10 per month; 1 receives also

board, value not reported, and 1 receives also profits of boarding house.

t Hours reported for 34 employees only.

u See notes to details.

v Including 1 boy.

w Hours reported for 57 employees only.

x Hours reported for 22 employees only.

y 3 employees receive also share of net profits.

z Including 1 boy; 1 employee receives also share of net profits.

aa Hours reported for 90 employees only.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Draftsmen:										
American.....	M.							2	59.5	\$1.12½
Drivers, delivery wagon:										
American.....	M.							1	72	1.03½
Japanese.....	M.							4	72	.93
Portuguese.....	M.							3	72	.98½
Total.....	M.							8	72	.96½
Dump cart men:										
Japanese.....	M.	44	66	\$0.75½						
Dynamo tenders:										
Chinese.....	M.							1	72	.92½
Japanese.....	M.							10	79	1.07½
Porto Rican.....	M.							1	84	.77
Total.....	M.							12	78.8	1.04
Electricians:										
American.....	M.	2	a 72	4.91½	3	60	\$3.13	2	65.5	2.87½
Chinese.....	M.	1	71	1.15½						
German.....	M.				1	(b)	1.91½			
Hawaiian.....	M.							3	68	1.49½
Irish.....	M.	1	72	2.87½						
Portuguese.....	M.							2	65.8	2.06½
Scotch.....	M.				1	60	2.57½			
Swiss.....	M.							1	72	4.60
Total.....	M.	4	c 71.7	3.46½	5	d 60	2.83½	8	67.3	2.37
Electricians' helpers:										
American.....	M.							e 1	72	e .61½
Hawaiian.....	M.				3	60	1.46	2	65.5	1.00
Japanese.....	M.	1	72	.84½	2	60	1.02			
Total.....	M.	1	72	.84½	5	60	1.28½	f 3	67.7	f .87
Engineers, chief:										
American.....	M.				1	72	8.62½	2	72	g 8.43½
Scotch.....	M.							1	60	7.67
Total.....	M.				1	72	8.62½	3	68	h 8.05½
Engineer, construction, chief:										
Scotch.....	M.	1	(b)	9.58½						
Engineers, donkey engine:										
American.....	M.				2	(b)	2.58½	1	59	2.87½
Canadian.....	M.				1	(b)	3.06½			
Chinese.....	M.				2	(b)	1.00	3	i 72	1.10
German.....	M.				1	(b)	2.60½	2	59	2.06½
Hawaiian.....	M.	2	60	1.25				2	a 59	1.57½
Port-Hawaiian.....	M.							1	59	2.30
Japanese.....	M.	6	61.7	1.21	1	(b)	1.10	8	64.3	.95½
Norwegian.....	M.							1	60	2.87½
Polish.....	M.				1	(b)	1.34½			
Portuguese.....	M.	2	65.5	1.25	3	(b)	1.28	4	e 63.7	1.52½
Scotch.....	M.				1	(b)	2.68½	2	59.3	2.87½
Total.....	M.	10	62.1	1.22½	12	(b)	1.82	24	j 63	1.59

a Hours reported for 1 employee only.

b Irregular.

c Hours reported for 3 employees only.

d Hours reported for 4 employees only.

e Boy.

f Including 1 boy.

g Wages reported for 1 employee only.

h Wages reported for 2 employees only.

i Hours reported for 2 employees only.

j Hours reported for 21 employees only.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.
SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Average hours per week.	Average wages per day.	Em- ploy- ees.	Average hours per week.	Average wages per day.	Em- ploy- ees.	Average hours per week.	Average wages per day.
Engineers' helpers, locomotive:										
Hawaiian	M.							2	72	\$0.71
Japanese	M.				2	60	\$1.50			
Porto Rican	M.							1	72	.92
Portuguese	M.							2	72	\$1.15
Total	M.				2	60	1.50	5	72	1.33
Engineers' helpers, mill:										
American	M.				1	72	1.91	2	67.5	\$1.77
American negro	M.	1	71	\$1.00						
Chinese	M.	6	70.9	1.23	6	72	.93	13	72	1.02
English	M.				1	72	1.00			
German	M.	5	72	1.58						
Hawaiian	M.	3	71.3	1.05	1	72	1.00	5	69.6	.90
Part-Hawaiian	M.	1	68	1.00						
Japanese	M.	53	70.9	1.00	8	72	1.12	83	71.4	.98
Norwegian	M.	2	71	1.05	1	72	1.34			
Portuguese	M.	9	70.3	1.05	2	72	1.48	12	70	1.46
Spanish	M.	1	72	1.00						
Total	M.	81	70.9	1.06	19	72	1.15	116	71.2	1.04
Engineers' helpers, pump:										
American	M.							1	69	1.18
Chinese	M.							1	69	.92
Japanese	M.	2	84	1.54				2	69	1.07
Portuguese	M.							1	69	1.91
Total	M.	2	84	1.54				5	69	1.23
Engineers' helpers, steam plow:										
American	M.							1	60	1.00
Chinese	M.							2	60	.96
Hawaiian	M.				2	60	1.07			
Part-Hawaiian	M.							1	60	.69
Japanese	M.				6	60	1.17	72	59.4	.92
Portuguese	M.				4	60	1.14	13	61.6	1.06
Total	M.				12	60	1.14	89	59.8	.93
Engineers, locomotive:										
American	M.	4	66	3.10	5	60	3.03	3	67.7	3.06
Canadian	M.				2	60	2.39			
Chinese	M.	1	63.3	1.00	1	60	.84	2	72	1.00
Danish	M.							1	72	3.06
English	M.				2	60	4.79			
Filipino	M.	1	60	1.53	1	60	1.72	1	72	1.91
German	M.	9	70.5	1.71	4	60	1.34	3	65	1.41
Hawaiian	M.	14	63.4	1.67	25	60	1.75	27	69.9	1.76
Part-Hawaiian	M.	9	64	1.92	3	60	2.75			
Japanese	M.	6	66.6	1.23	9	60	1.19	10	70.7	1.21
Norwegian	M.				1	60	2.68			
Portuguese	M.	16	64.9	1.80	22	60	1.93	37	70.8	1.88
Russian	M.				1	60	2.49	1	72	2.49
Scotch	M.	1	58	4.21	2	60	2.01	3	72	2.81
Spanish	M.							1	72	1.34
Swedish	M.	2	66	2.49						
Total	M.	63	65.3	1.85	78	60	1.95	89	70.3	1.82

a Including 1 boy.

b Receive also bonus of \$1 for each Sunday worked.

c See notes to details.

d Boys.

e Hours reported for 4 employees only.

f Hours reported for 80 employees only.

g Including 2 boys.

h Hours reported for 2 employees only.

i Hours reported for 8 employees only.

j Hours reported for 7 employees only.

k 1 employee receives also bonus of \$1 for each Sunday worked.

l Hours reported for 14 employees only.

m 2 employees receive also bonus of \$1 for each Sunday worked.

n 1 employee receives also share of net profits.

o Hours reported for 56 employees only.

REPORT OF THE COMMISSIONER OF LABOR ON HAWAII. 641

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Average hours per week.	Average wages per day.	Em- ploy- ees.	Average hours per week.	Average wages per day.	Em- ploy- ees.	Average hours per week.	Average wages per day.
Engineers, machine shop:										
German.....	M.				2	60	\$1.03			
Hawaiian.....	M.							2	59.5	\$2.60½
Japanese.....	M.				2	60	1.00			
Total.....	M.				4	60	1.01½	2	59.5	2.60½
Engineers, mill:										
American.....	M.				18	72	a 6.34½	19	71.8	6.60
Australian.....	M.							2	72	7.50½
Canadian.....	M.				2	72	6.23	3	72	7.88
Chinese.....	M.				2	72	2.39½			6.39
English.....	M.				8	72	5.39	6		5.39
French.....	M.				1	72	5.75	1	72	5.75
German.....	M.				5	72	3.95	10	70	6.19½
Hawaiian.....	M.							1	72	4.79
Japanese.....	M.				4	72	1.76½	1	72	3.26
New Zealander.....	M.				1	72	8.62½			
Portuguese.....	M.				2	72	b 2.78	3	68.8	3.13
Scotch.....	M.				9	72	6.11½	7	70.8	6.45½
Swedish.....	M.				1	72	5.75			
Total.....	M.				53	72	c 5.32½	53	70.7	6.27½
Engineers, mill, assistant:										
American.....	M.	6	d 72	\$4.25	4	72	4.84	5	69.6	3.66½
Chinese.....	M.	3	69.4	1.65	3	72	1.76	3	72	2.81
English.....	M.				1	72	3.45			
French.....	M.									4.60
German.....	M.							1	72	1.91½
Hawaiian.....	M.	4	d 70.3	4.02½				2	72	1.62½
Part-Hawaiian.....	M.				2	72	1.44			
Japanese.....	M.	1	72	3.06½				6	72	1.72½
Norwegian.....	M.	4	e 72	2.06	14	72	1.14½	1	72	2.30
Portuguese.....	M.	10	f 71.9	2.22½	14	72	2.10½	12	72	2.07
Scotch.....	M.	1	(g)	3.83½	1	72	2.87½	1	72	3.64
Spanish.....	M.							1	72	1.91½
Total.....	M.	29	h 71.3	2.89½	39	72	2.03½	33	71.6	2.41
Engineers, mill, chief:										
American.....	M.	13	e 72	b 7.27	3	72	6.71			
Australian.....	M.	1	(g)	5.36½						
Canadian.....	M.	2	(g)	6.71	1	72	6.71			
English.....	M.	5	i 71	b 6.98	2	72	7.82½			
German.....	M.	7	i 72	6.84½	4	72	7.19			
Norwegian.....	M.	1	(g)	6.71						
Scotch.....	M.	6	d 65.8	6.12	1	72	5.75			
Total.....	M.	35	j 69.2	c 6.84½	11	72	7.00			
Engineers, pump:										
American.....	M.	13	k 84	3.32½	21	84	i 3.49	11	78.5	3.71
Chinese.....	M.	8	84	1.15½	6	84	4.37	4	72.8	1.28½
English.....	M.	3	84	a 4.50	2	84	2.96	3	72	3.38½
German.....	M.	7	84	3.19½	2	84	1.64½	8	75.7	2.70½
Hawaiian.....	M.	1	84	1.64½	8	j 80.6	b 1.67	12	77.8	2.39
Part-Hawaiian.....	M.	4	84	2.67						
Irish.....	M.	1	84	2.96						
Japanese.....	M.	10	m 81.8	1.22	20	84	1.12½	30	77	1.19

a 2 employees receive also share of net profits.

b 1 employee receives also share of net profits.

c See notes to details.

d Hours reported for 3 employees only.

e Hours reported for 2 employees only.

f Hours reported for 8 employees only.

g Irregular.

h Hours reported for 20 employees only.

i Hours reported for 1 employee only.

j Hours reported for 7 employees only.

k Hours reported for 11 employees only.

l 4 employees receive also share of net profits.

m Hours report only.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Engineers, pump (concluded):										
Norwegian.....	M.	3	^a 84	\$3.03	3	84	\$3.56 ^d	4	^b 72	\$2.97 ^e
Portuguese.....	M.	6	80.9	1.81 ^f	7	84	1.76	11	70.5	1.89
Russian.....	M.							2	72	2.45
Scotch.....	M.							2	78	6.57 ^g
Total.....	M.	56	^c 83.1	^d 2.42 ^h	69	^e 83.6	^f 2.17	82	^g 76.4	2.28
Engineers, pump, assistant:										
American.....	M.	1	84	5.75 ⁱ	4	84	2.92	1	84	2.29
English.....	M.	1	71	^j 2.30	1	84	2.96			
Hawaiian.....	M.	1	71	^k 1.91 ^l	1	60	2.00			
Japanese.....	M.				4	84	1.48		72	1.22
Norwegian.....	M.				1	84	2.96			
Portuguese.....	M.				2	84	2.63	2	72	2.44
Spanish.....	M.	1	71	1.07 ^m						
Total.....	M.	4	74.3	ⁿ 2.76	13	82.2	2.36 ^o	7	74	1.86 ^p
Engineers, pump, chief:										
American.....	M.	3	(^q)	6.30	1	84	6.57 ^r	3	72	6.94 ^s
English.....	M.				1	84	7.39 ^t	1	72	7.67
Norwegian.....	M.	1	(^u)	7.39 ^v						
Portuguese.....	M.							1	84	2.78
Scotch.....	M.	2	(^w)	6.09 ^x	1	84	7.39 ^y			
Total.....	M.	6	(^z)	6.39 ^{aa}	3	84	7.12	5	74.4	6.21 ^{ab}
Engineers, railroad, chief:										
American.....	M.	1	(^{ac})	4.79						
English.....	M.	1	(^{ad})	9.58 ^{ae}						
Hawaiian.....	M.	1	60	2.30						
Portuguese.....	M.	1	72	3.06 ^{af}						
Total.....	M.	4	^{ag} 66	4.93 ^{ah}						
Engineers, sawmill:										
American.....	M.	2	60	3.75						
Engineers, steam plow:										
American.....	M.				2	63	5.27 ^{ai}	4	63.1	5.12 ^{aj}
Canadian.....	M.							1	66	4.79
Chinese.....	M.	1	65.8	1.00						
English.....	M.				1	60	8.75	6	69.1	6.60 ^{ak}
German.....	M.	7	59	1.22	9	60	2.75	2	59	3.73 ^{al}
Hawaiian.....	M.	3	61.8	1.11 ^{am}	3	60	1.33 ^{an}	5	61.3	1.12 ^{ao}
Hart-Hawaiian.....	M.				1	60	2.87 ^{ap}			
Japanese.....	M.	57	60.9	1.14 ^{aq}	32	60	1.21 ^{ar}	16	60.8	1.15
Norwegian.....	M.				5	60	^{as} 4.29 ^{at}	2	59	3.83 ^{au}
Polish.....	M.	1	59	1.25						
Porto Rican.....	M.							1	62	1.25
Portuguese.....	M.	20	60.8	1.30	27	60	1.61	19	59.8	1.73 ^{av}
Scotch.....	M.				3	60	4.25	1	60	4.79
Swedish.....	M.				1	60	3.83 ^{aw}			
Total.....	M.	89	60.8	1.18 ^{ax}	84	60.1	^{ay} 2.00 ^{az}	58	60.6	2.29
Engineers, steam plow, assistant:										
American.....	M.							3	59	1.83 ^{ba}
German.....	M.							4	59	1.54
Hawaiian.....	M.				1	60	1.00			
Japanese.....	M.				5	60	1.15 ^{bb}	5	62.6	1.12 ^{bc}
Portuguese.....	M.				2	60	1.38 ^{bd}	7	60.9	1.40 ^{be}
Total.....	M.				8	60	1.19	19	60.6	1.55

^a Hours reported for 2 employees only.^b Hours reported for 3 employees only.^c Hours reported for 60 employees only.^d 2 employees receive also share of net profits.^e Hours reported for 68 employees only.^f See notes to details.^g Hours reported for 81 employees only.^h Also share of net profits.ⁱ Irregular.^j 1 employee receives also share of net profits.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Engineer, steam plow, chief:										
German.....	M.							1	59	\$5.75
Engineer, steam tug:										
Portuguese.....	M.	1	59	\$1.88						
Engineers, traction engine:										
Japanese.....	M.							1	66	1.53
Portuguese.....	M.				1	60	\$1.91	3	62.5	2.04
Total.....	M.				1	60	1.91	4	63.4	1.91
Engineers, traction engine, assistant:										
Japanese.....	M.							1	66	.84
Portuguese.....	M.				2	60	1.00			
Fencemen:										
Chinese.....	M.				1	60	.73			
Hawaiian.....	M.				3	60	.73	4	60.3	.90
Japanese.....	M.	2	59.5	.76	11	60	.80	23	61.1	.79
Porto Rican.....	M.				4	60	.66			
Portuguese.....	M.	7	59.9	.98	25	60	1.02	25	59.4	.94
Total.....	M.	9	59.8	.93	44	60	1.00	52	60.3	.87
Fertilizers:										
Japanese.....	M.	10	(b)	1.00						
Field hands:										
American negro.....	M.	16	59.1	.65	6	60	.83			
Austrian.....	M.	2	60	.85	2	60	.86			
Chinese.....	M.	2,698	59.5	.78	1,113	60	.68	1,218	59.6	.65
Filipino.....	M.				4	60	.73			
German.....	M.	30	59	.77	14	60	.91	22	59	.71
Hawaiian.....	M.	113	59.3	.78	355	60	.72	338	60.1	.74
Hawaiian.....	F.				24	60	.52	1	59	.46
Hawaiian.....	(b)				114	60	.47			
Part-Hawaiian.....	M.							1	60	.77
Italian.....	M.				90	60	.84	2	59	1.00
Japanese.....	M.	15,997	59.5	.76	11,245	60	.67	11,820	59.7	.65
Japanese.....	F.	1,418	59.4	.43	2,432	60	.44	2,091	59.5	.44
Japanese and Chinese.....	M.				160	60	.65			
Korean.....	M.							3,039	59.7	.65
Korean.....	F.							44	59.4	.49
Polish.....	M.	11	59.7	.85	8	60	1.00	1	60	.84
Polish.....	F.	2	59	.46						
Porto Rican.....	M.	78	59	.63	1,679	60	.61	1,005	59.6	.64

a Including 1 boy.

b Not reported.

c Hours reported for 1,852 employees only.

d Including 1 pensioner.

e Including 7 boys, contract workers.

f Hours reported for 1,211 employees only.

g Including 8 boys.

h Including 11 boys.

i Including 8 boys and 10 pensioners.

j Hours reported for 100 employees only.

k Including 7 boys.

l Including 31 boys.

m Children.

n Including 4 boys.

o Hours reported for 12,154 employees only.

p Including 3 boys.

q Including 24 boys and 27 contract workers.

r Hours reported for 11,305 employees only.

s Hours reported for 1,388 employees only.

t Hours reported for 2,094 employees only.

u Including 24 boys, 4 of whom are contract workers.

v Hours reported for 3,035 employees only.

w Including 148 boys.

x Including 244 boys, 16 of whom are contract workers. 19 employees receive also bonus of \$2 for every 26 days worked; 89, 50 cents for every 6 days worked in a week, and 42, a bag of flour, valued at \$1.40, if 20 days or more are worked in a month.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex	1900-1901.			1902.			1903.		
		Em- ploy- ees.	Average hours per week.	Average wages per day.	Em- ploy- ees.	Average hours per week.	Average wages per day.	Em- ploy- ees.	Average hours per week.	Average wages per day.
Field hands (concluded):										
Porto Rican.....	F.				a 175	60	\$0.42	b 97	59.6	\$0.43
Portuguese.....	M.	c 692	d 59.2	e \$0.76	f 1,083	60	g .74	h 1,082	i 59.6	j .80
Portuguese.....	F.	k 98	l 59.1	m .47	n 100	60	o .47	p 164	59.4	q .43
South Sea Islander.....	M.				7	60	.63			
Spanish.....	M.	7	59.9	.71	1	60	.92			
Spanish.....	F.	1	59	.50						
Total.....		121,180	m 59.5	l .73	18,536	60	l .61	120,925	n 59.7	l .63
Fireman, donkey engine:										
Japanese.....	M.				1	(e)	.84			
Firemen, locomotive:										
Chinese.....	M.				1	60	.73	2	72	.69
German.....	M.	p 3	71.7	p .98	4	60	.79	q 2	65	q .73
Hawaiian.....	M.	r 16	r 63.2	r .99	18	60	1.02	10	70.8	r .92
Part-Hawaiian.....	M.	2	66	1.07						
Japanese.....	M.	23	65.4	.91	21	60	.93	7	70	.87
Portuguese.....	M.	8	s 65.8	.97	14	60.9	1.06	p 19	71.6	p .97
Total.....	M.	t 52	t 65.2	t .95	58	60.2	.98	t 40	70.8	t .91
Firemen, mill:										
American.....	M.				1	72	1.34			
Chinese.....	M.	48	71.3	.84	43	72	.91	42	71.9	.84
Hawaiian.....	M.	5	70.4	1.13						
Japanese.....	M.	188	71.4	.85	195	72	.86	223	70.3	s .79
Porto Rican.....	M.							1	72	.84
Portuguese.....	M.	6	71.9	1.14	2	72	2.01	2	72	1.04
Total.....	M.	247	71.4	.86	239	72	.88	268	70.6	u .80
Firemen, pump:										
American.....	M.							1	69	1.15
Chinese.....	M.	30	82.6	.95	4	84	.79	32	69.8	.94
Hawaiian.....	M.				7	80.6	1.00	8	72	.95
Japanese.....	M.	63	82.8	.90	73	83.7	.84	100	v 73.9	.95
Portuguese.....	M.	2	84	.92	1	84	.85	1	84	.90
Spanish.....	M.							1	84	1.00
Total.....	M.	101	82.8	.91	85	83.4	.85	138	w 78	.95
Flume men:										
Chinese.....	M.	1	59	.77				30	62.3	.90
Hawaiian.....	M.							p 16	72	p .81
Japanese.....	M.	47	x 58.3	.94	86	72	.72	209	69.7	z .77

a Including 5 girls.

b Including 2 girls and 8 contract workers.

c Including 109 boys.

d Hours reported for 660 employees only.

e Including 223 boys and 1 pensioner.

f Including 411 boys, 35 of whom are contract workers.

g Hours reported for 1,065 employees only.

h Including 15 girls.

i Hours reported for 73 employees only.

j Including 2 girls.

k Including 28 girls, and 3 employees bagging cane, at 1½ cents per bag.

l See notes to details.

m Hours reported for 16,396 employees only.

n Hours reported for 20,285 employees only.

o Irregular.

p Including 1 boy.

q Boys.

r Hours reported for 14 employees only.

s Hours reported for 6 employees only.

t Hours reported for 48 employees only.

u 4 employees receive also \$1 for each Sunday the boilers are cleaned.

v Hours reported for 96 employees only.

w Hours reported for 134 employees only.

x Hours reported for 34 employees only.

y Hours reported for 34 employees only.

TABLE III.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupations and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Flume men (concluded):										
Porto Rican.....	M.							a 14	62.7	\$0.57½
Portuguese.....	M.	12	b 59.4	\$1.28½	1	72	\$1.34½	c 10	71	e .73½
Total.....	M.	60	d 58.4	1.00½	87	72	.73	e 279	68.7	e .78
Foremen, carpenters:										
American.....	M.	6	59.3	5.49	3	60	f 5.24	1	59	6.13½
Canadian.....	M.	1	60	3.83½						
Chinese.....	M.	1	59	1.91½						
English.....	M.	1	60	4.56						
German.....	M.	3	59.7	4.67½						
Hawaiian.....	M.	2	59.5	3.64½	1	60	3.83½			
Part-Hawaiian.....	M.	2	59	3.49½	1	60	3.83½			
Irish.....	M.	1	60	4.98½						
Japanese.....	M.	4	59.8	2.15½						
Portuguese.....	M.	2	59.5	3.23½						
Scotch.....	M.	1	60	4.98½						
Total.....	M.	24	59.5	4.02½	5	60	f 4.67½	1	59	6.13½
Foremen, carpenters, assistant:										
American.....	M.	2	59	4.23½						
English.....	M.	1	60	3.83½						
Japanese.....	M.	1	60	1.99½						
Total.....	M.	4	59.3	3.57½						
Foremen, ditchmen:										
American.....	M.				1	60	3.83½	4	60.3	4.55½
Chinese.....	M.							1	59.5	1.72½
German.....	M.							1	59	3.83½
Japanese.....	M.							3	59.7	1.78½
Portuguese.....	M.				1	60	4.10	7	g 59.7	1.72½
Total.....	M.				2	60	3.96½	16	h 59.8	2.57½
Foremen, firemen, mill:										
American.....	M.							2	72	2.39½
Foreman, flume men:										
Japanese.....	M.				1	60	1.00			
Foremen, laborers, mill:										
American.....	M.							2	72	2.39½
Foreman, laborers, mill construction:										
Norwegian.....	M.	1	59	2.30						
Foremen, laborers, railroad:										
American.....	M.	2	60	2.97	1	60	3.64	1	59	2.30
Chinese.....	M.	6	60	1.47	3	60	1.72½	3	59	1.16½
German.....	M.	1	i 59	5.56	2	60	2.17½			
Hawaiian.....	M.	1	59	1.91½	1	60	1.91½			
Part-Hawaiian.....	M.							1	59	2.49
Japanese.....	M.	10	59.3	1.19½	10	60	1.26½	12	59.8	1.14½
Portuguese.....	M.	4	59.3	1.33½	3	60	1.19½	1	59	1.91½
Total.....	M.	24	j 59.5	1.65	20	60	1.56½	18	59.5	1.33
Foreman, laborers, railroad, as- sistant:										
German.....	M.	1	59	2.30						
Foremen, masons:										
American.....	M.				1	60	8.43½			
English.....	M.	1	60	7.74½						

a Including 5 boys. 5 employees receive also bonus of 50 cents for every 6 days worked.

b Hours reported for 5 employees only.

c Including 4 boys.

d Hours reported for 40 employees only.

e See notes to details.

f 1 employee receives also share of net profits.

g Hours reported for 6 employees only.

h Hours reported for 15 employees only.

i Irregular.

j Hours reported for 23 employees only.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1903.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Foremen, mill:										
American.....	M.							2	72	\$1.82
Japanese.....	M.				6	72	\$0.75			
Foremen, painters:										
Hawaiian.....	M.				1	60	2.76			
Part-Hawaiian.....	M.	1	60	\$4.21						
Foremen, shaft diggers:										
American.....	M.	5	60	5.41						
Foremen, stablemen:										
American.....	M.	4	84	2.60	8	72	2.59	8	64.4	2.57
Australian.....	M.							1	70	2.79
Belgian.....	M.	1	84	1.15						
Canadian.....	M.	1	(d)	2.27						
German.....	M.	1	70	1.91	1	72	1.91	3	65	2.57
Hawaiian.....	M.	1	84	1.31	2	72	1.21	2	64.5	1.42
Part-Hawaiian.....	M.				1	72	2.30	1	66	2.68
Japanese.....	M.	2	84	1.15	6	72	1.15	5	74.2	.39
Norwegian.....	M.	1	(d)	2.07				1	84	2.30
Portuguese.....	M.	4	84	1.54	6	72	1.60	12	70.3	1.21
Scotch.....	M.				1	72	1.53	3	68.5	2.36
Swedish.....	M.	1	84	3.29						
Total.....	M.	16	82.3	1.93	25	72	1.81	36	68.0	1.82
Foremen, stablemen, assistant:										
American.....	M.	2	84	2.05						
Foremen, teamsters and cultiva- tors:										
American.....	M.	13	60	3.22	6	66	\$3.03	7	62	2.38
Canadian.....	M.	1	60	3.83				1	(e)	2.63
Danish.....	M.	1	60	2.64	2	66	2.49			
English.....	M.				3	66	2.36			
German.....	M.	4	59.5	2.95	8	66	2.78	2	60.5	2.38
Hawaiian.....	M.	6	60	2.11	11	66	1.82	7	60.1	1.97
Part-Hawaiian.....	M.	1	(d)	\$2.49	1	66	2.30	2	59.5	1.92
Japanese.....	M.	1	72	1.72	1	66	1.15	2	59.5	1.44
Norwegian.....	M.	2	59	1.89						
Portuguese.....	M.	6	60	1.91	17	66	\$1.59	10	61	2.06
Scotch.....	M.	12	61	2.90	13	66	2.83	9	59.3	2.06
Swedish.....	M.				1	66	3.06			
Total.....	M.	47	60.7	\$2.73	68	66	\$2.14	49	60.4	2.31
Foreman, tramway:										
Portuguese.....	M.				1	60	1.34			
Foreman, wharf:										
Hawaiian.....	M.							1	60	1.00
Foresters:										
Japanese.....	M.							1	59	.65
Portuguese.....	M.							1	59	.88
Total.....	M.							2	59	.77
Freight handlers:										
Hawaiian.....	M.				11	60	1.09	11	59	1.09
Japanese.....	M.							21	64.5	.78
Total.....	M.				11	60	1.09	32	62.6	.88

a Hours reported for 3 employees only.

b Hours reported for 1 employee only.

c Hours reported for 7 employees only.

d Irregular.

e Hours reported for 2 employees only.

f Hours reported for 8 employees only.

g Hours reported for 34 employees only.

h 1 employee receives also share of net profits.

i Hours reported for 6 employees only.

j Also share of net profits.

k Hours reported for 4 employees only.

l Hours reported for 18 employees only.

m See notes to details.

n Hours reported for 28 employees only.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Average hours per week.	Average wages per day.	Em- ploy- ees.	Average hours per week.	Average wages per day.	Em- ploy- ees.	Average hours per week.	Average wages per day.
Gardener:										
French.....	M.							1	59	\$2.30
Harness makers:										
American.....	M.				1	60	\$2.00			
Chinese.....	M.				3	60	.81			
English.....	M.				1	60	2.00			
German.....	M.	2	59	\$2.21½	1	60	2.50			
Guam Islander.....	M.	1	60	1.50				1	(a)	.69
Hawaiian.....	M.				1	(a)	2.00	1	59	2.00
Japanese.....	M.	4	59.8	1.13½	4	60	1.03	9	59.9	1.04½
Mexican.....	M.							1	(a)	1.00
Polish.....	M.	2	59.5	1.25				2	59.3	1.13½
Portuguese.....	M.	10	59.4	1.16	9	60	1.27	14	59.3	1.25½
Spanish.....	M.	1	60	1.00	1	60	1.00	1	59	.96
Spanish-American.....	M.							1	(a)	3.50
Total.....	M.	20	59.5	1.28	21	60	1.31	30	59.4	1.24½
Hospital stewards:										
American.....	M.							1	84	2.63
Japanese.....	M.	1	(a)	.66						
Scotch.....	M.	1	(a)	2.30						
Total.....	M.	2	(a)	1.48				1	84	2.63
Interpreters:										
Chinese.....	M.	1	(a)	.92½				1	60	1.91½
Japanese.....	M.	5	(a)	1.23	8	(a)	¢1.34½	9	60.6	1.65
Korean.....	M.							5	61.5	1.01½
Total.....	M.	6	(a)	1.18	8	(a)	¢1.34½	15	60.8	1.46
Laborers, general:										
American.....	M.							f 3	600	f 1.53½
American negro.....	M.	1	60	.77	1	60	.69			
Chinese.....	M.	1	65.3	.77	h 24	64.5	h .82½	h 3	59	h .79½
Fiji Islander.....	M.							2	60	.77
Filipino.....	M.							1	60	1.00
Hawaiian.....	M.	f 54	58.3	f .78	h 32	61.5	h .69	137	m 61	f .66½
Hawaiian.....	F.							f 1	(a)	f .57½
Part-Hawaiian.....	M.	4	58.3	.94½						
Japanese.....	M.	58	60.1	.78½	m 191	62.2	m .79½	o 41	59.9	o .73½
Japanese.....	F.				3	68	.40			
Norwegian.....	M.	2	59	.73	4	60	.86½	p 3	600	p .64
Polish.....	M.				q 3	60	q .50	4	62.3	.86½
Polish.....	F.				2	60	.69			
Porto Rican.....	M.				r 18	60	r .62	n 2	60	n .55½
Porto Rican.....	F.				1	60	.65½			
Portuguese.....	M.	s 15	59.8	s .86½	t 80	60	t .76½	u 79	59.6	u .73
Portuguese.....	F.				f 1	60	f .57½			
Samoa.....	M.				1	60	.77			

a Irregular.

b Hours reported for 8 employees only.

c Hours reported for 20 employees only.

d Hours reported for 26 employees only.

e 1 employee receives also share of net profits.

f Pensioners.

g Hours reported for 1 employee only.

h Including 1 pensioner.

i Hours reported for 2 employees only.

j Including 3 boys.

k Including 9 boys and 1 pensioner.

l Including 18 boys and 1 pensioner.

m Hours reported for 36 employees only.

n Including 1 boy.

o Including 6 boys and 2 pensioners.

p Including 1 boy and 2 pensioners.

q Boys.

r Including 9 boys.

s Including 2 boys.

t Including 14 boys and 2 pensioners.

u Including 20 boys, 1 pensioner, and 4 old men.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1903.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Foremen, mill:										
American	M.							2	72	\$1.62½
Japanese	M.				6	72	\$0.75			
Foremen, painters:										
Hawaiian	M.				1	60	2.76			
Part-Hawaiian	M.	1	60	\$4.21½						
Foremen, shaft diggers:										
American	M.	5	a 60	5.41½						
Foremen, stablemen:										
American	M.	4	b 84	2.60½	8	72	2.59	8	c 64.4	2.57½
Australian	M.							1	70	2.79½
Belgian	M.	1	84	1.15						
Canadian	M.	1	(d)	2.27						
German	M.	1	70	1.91½	1	72	1.91½	3	e 65	2.57
Hawaiian	M.	1	84	1.31½	2	72	1.21	2	64.5	1.42½
Part-Hawaiian	M.				1	72	2.30	1	66	2.68½
Japanese	M.	2	b 84	1.15½	6	72	1.15½	5	74.2	.99
Norwegian	M.	1	(d)	2.07				1	84	2.30
Portuguese	M.	4	e 84	1.54	6	72	1.60	12	70.3	1.21½
Scotch	M.				1	72	1.53½	3	66.5	2.36½
Swedish	M.	1	84	3.29						
Total	M.	16	f 82.3	1.93	25	72	1.81½	36	g 68.9	1.82
Foremen, stablemen, assistant:										
American	M.	2	b 84	2.06½						
Foremen, teamsters and cultiva- tors:										
American	M.	13	a 60	3.22½	6	66	h 3.03½	7	i 62	2.38½
Canadian	M.	1	60	3.83½				1	(d)	2.63
Danish	M.	1	60	2.64½	2	66	2.49			
English	M.				3	66	2.36½			
German	M.	4	e 59.5	2.95½	3	66	2.78½	2	60.5	2.58½
Hawaiian	M.	6	e 60	2.11	11	66	1.82	7	60.1	1.97½
Part-Hawaiian	M.	1	(d)	j 2.49	1	66	2.30	2	59.5	1.92
Japanese	M.	1	72	1.72½	1	66	1.15½	2	59.5	1.43½
Norwegian	M.	2	b 59	1.89½						
Portuguese	M.	6	k 60	1.91	17	66	h 1.59½	10	61	2.06½
Scotch	M.	12	a 61	2.90½	13	66	2.83	9	59.3	2.96
Swedish	M.				1	66	3.06½			
Total	M.	47	i 60.7	h 2.73	58	66	m 2.14½	40	n 60.4	2.31
Foreman, tramway:										
Portuguese	M.				1	60	1.31½			
Foreman, wharf:										
Hawaiian	M.							1	60	1.00
Foresters:										
Japanese	M.							1	59	.65½
Portuguese	M.							1	59	.88½
Total	M.							2	59	.77
Freight handlers:										
Hawaiian	M.				11	60	1.09	11	59	1.09
Japanese	M.							21	64.5	.78
Total	M.				11	60	1.09	32	62.6	.88½

a Hours reported for 3 employees only.

b Hours reported for 1 employee only.

c Hours reported for 7 employees only.

d Irregular.

e Hours reported for 2 employees only.

f Hours reported for 8 employees only.

g Hours reported for 34 employees only.

h 1 employee receives also share of net profits.

i Hours reported for 6 employees only.

j Also share of net profits.

k Hours reported for 4 employees only.

l Hours reported for 18 employees only.

m See notes to details.

n Hours reported for 38 employees only.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Average hours per week.	Average wages per day.	Em- ploy- ees.	Average hours per week.	Average wages per day.	Em- ploy- ees.	Average hours per week.	Average wages per day.
Laborers, sawmill:										
Japanese.....	M.	60	60	\$0.74						
Laborers, steam plow:										
American.....	M.							a1	59	\$0.75
German.....	M.	4	59	.84	13	60	\$0.81			
Hawaiian.....	M.	5	64.8	.77	5	60	.96	5	59	1.01
Japanese.....	M.	118	60.6	.80	155	60	.86	69	59.6	.83
Korean.....	M.							2	59.5	.69
Polish.....	M.	4	59	1.00						
Porto Rican.....	M.				6	60	.65	2	59	.77
Portuguese.....	M.	b12	59.3	b.78	c26	60	c.85	15	59.3	.89
Spanish.....	M.									
West Indian negro.....	M.				4	60	.88			
Total.....	M.	b143	60.5	b.80	c209	60	c.85	d94	59.4	d.84
Laborers, steam tug:										
Hawaiian.....	M.	3	59	1.30						
Laborers, trainway:										
Portuguese.....	M.				6	60	1.00			
Land clearers:										
Chinese.....	M.	118	c59	.74	9	60	.69			
French.....	M.							12	(f)	g1.00
Japanese.....	M.	200	h59	.80	17	60	.93	54	h59.5	j.85
Korean.....	M.							15	57	.73
Porto Rican.....	M.							15	(f)	g.85
Portuguese.....	M.							116	59	.62
Spanish.....	M.							1	62.5	.81
Total.....	M.	318	h59	.78	26	60	.85	213	h58.9	m.70
Land preparers:										
Japanese.....	M.	25	(*)	.90	70	60	.65	125	o59.6	p.67
Lime burners:										
Portuguese.....	M.				2	60	1.53	4	72	1.23
Machinists:										
American.....	M.	12	59.8	q4.35	13	60	r4.56	15	58.8	s3.92
Canadian.....	M.				1	60	t4.00			
English.....	M.	1	60	4.00	1	60	u5.75	2	65	3.90
German.....	M.	3	59.7	3.15	2	60	v2.00	1	60	2.00
Hawaiian.....	M.				3	60	3.29	2	53.5	1.57
Part-Hawaiian.....	M.	2	59.5	2.98	3	60	w3.57	2	60.8	2.80
Japanese.....	M.	3	60	2.47	6	60	x2.08	1	59.5	3.50
Polish.....	M.							1	48	1.54
Portuguese.....	M.				5	60	1.86	1	59	2.30
Scotch.....	M.	2	59.5	4.49	2	60	y4.50	1	59.5	4.75
Total.....	M.	23	59.8	q3.82	36	60	w3.46	26	58.7	s3.44

a Boy.

b Including 3 boys.

c Including 2 boys.

d Including 1 boy.

e Hours reported for 98 employees only.

f Irregular.

g Contract workers.

h Hours reported for 147 employees only.

i Hours reported for 17 employees only.

j Wages reported for 17 employees only.

k Hours reported for 245 employees only.

l Hours reported for 149 employees only.

m Wages reported for 176 employees only, including 27 contract workers.

n Not reported.

o Hours reported for 100 employees only.

p Wages reported for 100 employees only, not including 25 who receive \$35 per acre.

q 2 employees receive also board.

r 4 employees receive also board, and 2 receive also share net profits.

s 3 employees receive also board, valued at \$24 per month, and 2 receive also board, valued at \$20

per month.

t And board.

u And share net profits.

v 1 employee receives also board.

w See notes to details.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS).—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Machinists' helpers:										
American.....	M.	2	60	\$2.52	2	60	\$2.01	4	59.1	\$1.13
Canadian.....	M.							1	59	1.37
Chinese.....	M.	2	59.5	1.37	1	60	.96	1	60	1.00
German.....	M.	43	60	\$1.41				61	59	1.84
Hawaiian.....	M.	3	59.7	1.28	3	60	1.03	4	59.6	1.06
Port-Hawaiian.....	M.	1	60	.69						
Japanese.....	M.	30	59.8	.91	14	60	1.13	15	58.9	1.19
Norwegian.....	M.				1	60	1.34	1	59	1.72
Polish.....	M.	1	60	.84						
Portuguese.....	M.	48	59.4	\$1.16	4	60	1.32	11	59.4	\$1.02
Scotch.....	M.	2	59	1.00	1	60	2.50			
Spanish.....	M.				1	60	1.25			
Total.....	M.	452	59.7	\$1.08	27	60	1.34	48	59.2	\$1.11
Masons:										
American.....	M.	4	59.3	\$1.25				2	60	1.33
English.....	M.	1	59	\$1.00						
German.....	M.	2	59.5	\$1.92	2	60	3.25	4	59	3.65
Hawaiian.....	M.	1	60	2.00	2	60	2.00			
Irish.....	M.	1	60	8.00						
Japanese.....	M.	34	59	.97	4	60	1.68	1	59	2.25
Portuguese.....	M.	23	59.7	2.23	23	60	1.76	18	59.2	1.71
Swedish.....	M.	2	60	8.00						
Total.....	M.	68	59.4	\$1.28	35	60	1.85	25	59.3	2.42
Masons' helpers:										
American.....	M.	1	60	1.00						
German.....	M.				2	60	.84	1	59	.84
Japanese.....	M.	75	59.8	.87	1	60	.78	16	59.3	.86
Norwegian.....	M.							1	59	1.57
Porto Rican.....	M.				2	60	.84			
Portuguese.....	M.	8	59.9	.96	16	60	1.08	8	59.5	1.21
Total.....	M.	84	59.8	.88	37	60	.91	26	59.2	1.05
Master mechanic:										
English.....	M.				1	60	4.60			
Nurses, day nursery:										
Japanese.....	F.							3	59	.55
Nurses, hospital:										
American.....	F.				4	70	\$1.85	4	70	\$1.56
American negro.....	M.				1	70	\$1.85			
German.....	F.							1	70	1.97
Japanese.....	F.	13	78	\$1.83	16	71	\$1.72	24	75	\$1.79
Portuguese.....	F.	1	(a)	\$1.49				4	80.6	1.45
Scotch.....	M.	1	(a)	\$1.66						
Scotch.....	F.	1	(a)	\$1.97						
Total.....		16	78	\$1.87	22	70.7	\$1.96	34	74.7	\$1.89

a Including 1 boy.

b Boy.

c Including 2 boys.

d See notes to details.

e 1 employee receives also board.

f And board.

g Hours reported for 16 employees only.

h Hours reported for 23 employees only.

i Including 1 girl.

j Hours reported for 4 employees only.

k Hours reported for 14 employees only.

l Hours reported for 20 employees only.

m 3 employees receive also board, valued at \$10 per month.

n Irregular.

o Hours reported for 30 employees only.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Office boys:										
Chinese	M.				1	60	\$0.17			
Japanese	M.							1	60	\$0.69
Porto Rican	M.				1	60	.57			
Total	M.				2	60	.37	1	60	.69
Oilers, car:										
Chinese	M.							1	59	.77
German	M.							1	65	1.15
Hawaiian	M.							5	64.4	.85
Japanese	M.				2	60	.84	7	61.1	.78
Portuguese	M.							5	60.5	.87
Total	M.				2	60	.84	19	61.9	.84
Oilers, mill:										
Chinese	M.				5	72	1.15	6	71.5	.88
Hawaiian	M.				2	72	.88	1	72	.84
Japanese	M.				7	72	.93	73	70.2	.82
Porto Rican	M.							2	72	.88
Portuguese	M.							6	70.1	.94
Total	M.				14	72	1.00	88	70.4	.83
Oilers, pump:										
Chinese	M.	10	84	\$0.79				17	64.9	1.03
German	M.							1	72	1.00
Hawaiian	M.	4	72	.77	2	84	.85	1	69	.90
Part-Hawaiian	M.							61	84	.59
Japanese	M.	61	82.3	.77	39	84	.77	32	67.1	.88
Portuguese	M.							64	75	.90
Total	M.	75	82	.77	41	84	.78	176	73.4	.92
Overseers:										
American	M.	53	f 59.5	2.57	97	60	2.54	75	59.5	2.60
Australian	M.	1	60	2.30				2	59	2.58
Austrian	M.	2	59.5	2.39	2	60	2.39	3	59.3	2.04
Boer	M.	1	60	2.49						
Canadian	M.	2	60	3.24	2	60	3.64	3	59.5	4.09
Chinese	M.	32	59.3	1.18	24	60	1.18	11	59.7	1.20
Danish	M.	1	59	2.30	3	60	3.00	4	59.4	2.01
English	M.	9	59.7	2.53	9	60	2.95	11	59.6	2.75
French	M.	2	62.7	2.49	3	60	2.43	2	59.5	2.78
German	M.	54	k 59.3	1.23	54	60	m 2.27	46	61.2	2.84
Greek	M.							2	59	1.29
Guam Islander	M.							1	59	2.11
Hawaiian	M.	40	59.1	1.44	73	60	1.57	76	59.8	1.60
Part-Hawaiian	M.	22	n 60	1.98	5	60	2.34	12	60.8	2.01
Hawaiian, white	M.	2	59	2.87						
Irish	M.	4	p 60	3.02	2	60	2.58	1	59	2.22
Italian	M.	2	60	2.49				1	62.5	1.53
Japanese	M.	66	q 59.4	1.18	103	60	1.24	64	59.7	1.23
Korean	M.							2	59.5	1.15
New Zealander	M.	1	60	2.30	1	60	2.30			

a Boy.

b Hours reported for 50 employees only.

c Including 1 boy.

d See notes to details.

e Hours reported for 74 employees only.

f Hours reported for 51 employees only.

g 3 employees receive also share of net profits.

h 2 employees receive also share of net profits.

i 1 employee receives also board, valued at \$20 per month.

j 4 employees receive also board, valued at \$20 per month.

k Hours reported for 45 employees only.

l 1 employee receives also share of net profits.

m 1 employee receives also board, and 1 receives also share of net profits.

n Hours reported for 21 employees only.

o Hours reported for 1 employee only.

p Hours reported for 3 employees only.

q Hours reported for 65 employees only.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Overseers (concluded):										
Norwegian	M.	13	a 60	\$2.53	9	60	\$2.53	14	59.5	\$2.94
Polish	M.				4	60	1.53	3	59	1.16
Porto Rican	M.	1	59	1.15	11	60	1.16	6	59.2	1.48
Portuguese	M.	154	c 59.5	d 1.69	164	60	e 1.62	197	59.4	1.65
Russian	M.	1	59	2.30				3	59	1.34
Scotch	M.	33	f 59.2	g 2.48	23	60	h 2.44	38	59.2	i 2.76
South American	M.				1	60	2.30			
Spanish	M.	3	59.3	2.04	2	60	1.91			
Swedish	M.	4	j 59.3	2.73	3	60	2.43	4	59.9	2.30
Swiss	M.							1	59	2.30
Welsh	M.				1	60	2.30			
Total	M.	503	k 59.6	l 1.87	596	60	1.83	582	59.6	1.94
Overseers, assistant:										
American	M.				1	60	m 2.30	7	60	2.24
Chinese	M.							9	59.7	1.21
German	M.				2	60	3.54			
Hawaiian	M.				5	60	n 1.72	12	60	1.43
Part-Hawaiian	M.				1	60	1.72			
Japanese	M.				1	60	.77	34	60.1	1.09
Korean	M.							2	59	1.03
Norwegian	M.				1	60	2.22			
Porto Rican	M.							1	60	1.53
Portuguese	M.				9	60	1.68	46	59.8	1.41
Russian	M.				1	60	2.30			
Scotch	M.				1	60	2.49			
Total	M.				22	60	1.94	111	59.9	1.34
Overseers, head:										
American	M.	9	o 60	p 6.71	22	60	q 6.20	20	59.8	5.56
Canadian	M.	4	(q)	6.71	2	60	6.23	3	58.5	5.64
Chinese	M.				1	60	5.75			
Danish	M.	1	(q)	8.58	1	60	5.75			
English	M.	2	(q)	4.21	2	60	7.66	3	60.2	6.62
French	M.	1	(q)	7.67	2	60	5.36	2	59	5.64
German	M.	3	(q)	5.32	6	60	6.75	10	63.4	6.80
Part-Hawaiian	M.				1	60	9.58	1	62	4.79
Hawaiian, white	M.	2	a 59	g 5.75				1	60	5.75
Italian	M.									
New Zealander	M.	1	(q)	6.71						
Norwegian	M.	3	(q)	7.03	1	60	5.75	3	59	6.00
Portuguese	M.				1	60	3.45			
Russian	M.							1	60	5.75
Scotch	M.	11	(q)	6.79	16	60	6.68	16	59.3	6.18
Swedish	M.				1	60	7.67			
Total	M.	37	r 59.5	s 6.56	56	60	6.43	60	60.2	t 6.01
Overseers, head, assistant:										
American	M.	3	(q)	4.47	9	60	u 4.62			
English	M.	2	(q)	5.75	1	60	5.75			
German	M.	5	(q)	6.25	8	60	4.96			
Part-Hawaiian	M.	1	(q)	4.21	2	60	4.50			

a Hours reported for 12 employees only.

b 2 employees receive also board, valued at \$20 per month.

c Hours reported for 153 employees only.

d 2 employees receive also share of net profits.

e 1 employee receives also board, and 1 receives also share of net profits.

f Hours reported for 32 employees only.

g 1 employee receives also share of net profits.

h 1 employee receives also board.

i 1 employee receives also board, valued at \$20 per month.

j Hours reported for 3 employees only.

k Hours reported for 483 employees only.

l See notes to details.

m Also share of net profits.

n 3 employees receive also share of net profits.

o Hours reported for 1 employee only.

p 1 employee receives also board, and 3 receive also share of net profits.

q Irregular.

r Hours reported for 2 employees only.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality,	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Overseers, head, asst. (concluded):										
Polish.....	M.				1	60	\$4.79			
Scotch.....	M.	4	(a)	\$3.78	7	60	4.88			
Swedish.....	M.				2	60	3.64			
Total.....	M.	18	(a)	5.24	30	60	4.62			
Overseer, mill:										
American.....	M.				1	60	6.71			
Overseer, ranch:										
American.....	M.							1	59	\$9.58
Overseers, steam plow:										
American.....	M.	4	d 66.7	4.84	1	60	e 4.79			
Danish.....	M.							1	62	4.79
English.....	M.	5	d 59.7	b 5.59	2	60	6.71			
German.....	M.	3	e 60	4.73				1	59	4.41
Hawaiian.....	M.	1	(a)	3.45						
Japanese.....	M.	1	65	1.15				1	60	1.75
Norwegian.....	M.	5	f 59.8	b 4.02						
Portuguese.....	M.	1	(a)	3.83	1	60	3.26			
Scotch.....	M.	1	60	4.79	1	60	4.60			
Total.....	M.	21	d 61.8	a 4.52	5	60	b 5.21	3	61.3	3.65
Overseers, steam plow, assistant:										
German.....	M.	1	60	2.87						
Portuguese.....	M.	2	e 60	1.82						
Total.....	M.	3	60	2.17						
Overseers, stock:										
German.....	M.	1	(a)	2.39	1	60	2.87			
Japanese.....	M.				1	60	1.15			
Total.....	M.	1	(a)	2.30	2	60	2.01			
Overseer, tunnel:										
American.....	M.							1	60	1.72
Pack-train men:										
Japanese.....	M.	60	62.9	.68	2	66	.77			
Portuguese.....	M.	4	60	1.00						
Total.....	M.	94	62.8	.69	2	66	.77			
Painters:										
American.....	M.	1	60	3.50	3	60	2.23			
Chinese.....	M.	7	59.3	1.11						
Filipino.....	M.				1	60	1.25			
German.....	M.	2	58	3.50	1	60	1.25	1	62.5	1.25
Hawaiian.....	M.	2	59.5	1.50	8	60	1.90	12	60.5	1.51
Part-Hawaiian.....	M.	1	60	2.30						
Japanese.....	M.	20	58.8	.86	15	60	1.05	8	59.5	.92
Porto Rican.....	M.				1	60	1.00			
Portuguese.....	M.	1	60	1.00	1	60	2.00	13	61.8	1.02
Spanish.....	M.	1	60	.92						
Total.....	M.	55	59.1	1.28	39	60	1.45	34	60.8	1.18
Para-ite tender:										
Japanese.....	M.							1	59.5	.70

a Irregular.

b 1 employee receives also share of net profits.

c Also share of net profits.

d Hours reported for 3 employees only.

e Hours reported for 1 employee only.

f Hours reported for 4 employees only.

g Hours reported for 13 employees only.

h See notes to details.

i Hours reported for 2 employees only.

TABLE III.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Overseers (concluded):										
Norwegian.....	M.	13	<i>a</i> 60	\$2.53	9	60	\$2.53 ¹	14	59.5	\$1.94 ¹
Polish.....	M.	.....	.....	.....	4	60	1.53 ¹	3	59	1.16 ¹
Porto Rican.....	M.	1	59	1.15 ¹	11	60	1.16 ¹	6	59.2	1.48 ¹
Portuguese.....	M.	154	<i>c</i> 59.5	<i>d</i> 1.69 ¹	164	60	<i>e</i> 1.62 ¹	197	59.4	1.65 ¹
Russian.....	M.	1	59	2.30	.....	.....	.....	3	59	1.34 ¹
Scotch.....	M.	33	<i>f</i> 59.2	<i>g</i> 2.48 ¹	23	60	<i>h</i> 2.44	38	59.2	<i>i</i> 2.76
South American.....	M.	.....	.....	.....	1	60	2.30	.....	.....	.....
Spanish.....	M.	3	59.3	2.04 ¹	2	60	1.91 ¹	.....	.....	.....
Swedish.....	M.	4	<i>f</i> 59.3	2.73	3	60	2.43	4	59.9	2.30
Swiss.....	M.	.....	.....	.....	.....	.....	.....	1	59	2.30
Welsh.....	M.	.....	.....	.....	1	60	2.30	.....	.....	.....
Total.....	M.	503	<i>k</i> 59.6	<i>l</i> 1.87 ¹	596	60	<i>l</i> 1.83 ¹	583	59.6	<i>l</i> 1.94
Overseers, assistant:										
American.....	M.	.....	.....	.....	1	60	<i>m</i> 2.30	7	60	2.24 ¹
Chinese.....	M.	.....	.....	.....	.....	.....	.....	9	59.7	1.21 ¹
German.....	M.	.....	.....	.....	2	60	3.54 ¹	.....	.....	.....
Hawaiian.....	M.	.....	.....	.....	5	60	<i>n</i> 1.72 ¹	12	60	1.43
Part-Hawaiian.....	M.	.....	.....	.....	1	60	1.72 ¹	.....	.....	.....
Japanese.....	M.	.....	.....	.....	1	60	.77	34	60.1	1.09 ¹
Korean.....	M.	.....	.....	.....	.....	.....	.....	2	59	1.03 ¹
Norwegian.....	M.	.....	.....	.....	1	60	2.22 ¹	.....	.....	.....
Porto Rican.....	M.	.....	.....	.....	.....	.....	.....	1	60	1.63 ¹
Portuguese.....	M.	.....	.....	.....	9	60	1.68 ¹	46	59.8	1.41 ¹
Russian.....	M.	.....	.....	.....	1	60	2.30	.....	.....	.....
Scotch.....	M.	.....	.....	.....	1	60	2.49	.....	.....	.....
Total.....	M.	.....	.....	.....	22	60	<i>l</i> 1.94	111	59.9	1.34 ¹
Overseers, head:										
American.....	M.	9	<i>o</i> 60	<i>o</i> 6.71	22	60	<i>p</i> 6.20	20	59.8	5.56
Canadian.....	M.	4	(<i>q</i>)	6.71	2	60	6.23	3	58.5	5.64 ¹
Chinese.....	M.	.....	.....	.....	1	60	5.75	.....	.....	.....
Danish.....	M.	1	(<i>q</i>)	9.58 ¹	1	60	5.75	.....	.....	.....
English.....	M.	2	(<i>q</i>)	4.21 ¹	2	60	7.66 ¹	3	60.2	6.63
French.....	M.	1	(<i>q</i>)	7.67	2	60	5.36 ¹	2	59	5.65 ¹
German.....	M.	3	(<i>q</i>)	5.32 ¹	6	60	6.75	10	63.4	6.80 ¹
Part-Hawaiian.....	M.	.....	.....	.....	1	60	9.68 ¹	1	62	4.79
Hawaiian, white.....	M.	2	<i>o</i> 59	<i>o</i> 5.75	.....	.....	.....	.....	.....	.....
Italian.....	M.	.....	.....	.....	.....	.....	.....	1	60	5.75
New Zealander.....	M.	1	(<i>q</i>)	6.71	.....	.....	.....	.....	.....	.....
Norwegian.....	M.	3	(<i>q</i>)	7.03	1	60	5.75	3	59	6.00 ¹
Portuguese.....	M.	.....	.....	.....	1	60	3.45	.....	.....	.....
Russian.....	M.	.....	.....	.....	.....	.....	.....	1	60	5.75
Scotch.....	M.	11	(<i>q</i>)	6.79	16	60	6.68	16	59.3	6.18
Swedish.....	M.	.....	.....	.....	1	60	7.67	.....	.....	.....
Total.....	M.	37	<i>r</i> 59.5	<i>l</i> 6.56 ¹	56	60	<i>p</i> 6.33	60	60.2	<i>l</i> 6.01
Overseers, head, assistant:										
American.....	M.	3	(<i>q</i>)	4.47	9	60	<i>o</i> 4.62	.....	.....	.....
English.....	M.	2	(<i>q</i>)	5.75	1	60	5.75	.....	.....	.....
German.....	M.	8	(<i>q</i>)	6.25 ¹	8	60	4.96	.....	.....	.....
Part-Hawaiian.....	M.	1	(<i>q</i>)	4.21 ¹	2	60	4.50 ¹	.....	.....	.....

^a Hours reported for 12 employees only.^b 2 employees receive also board, valued at \$20 per month.^c Hours reported for 153 employees only.^d 2 employees receive also share of net profits.^e 1 employee receives also board, and 1 receives also share of net profits.^f Hours reported for 32 employees only.^g 1 employee receives also share of net profits.^h 1 employee receives also board.ⁱ 1 employee receives also board, valued at \$20 per month.^j Hours reported for 3 employees only.^k Hours reported for 483 employees only.^l See notes to details.^m Also share of net profits.ⁿ 3 employees receive also share of net profits.^o Hours reported for 1 employee only.^p 1 employee receives also board, and 3 receive also share of net profits.^q Irregular.^r Hours reported for 2 employees only.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Sawyer, sawmill, assistant:										
American	M.	1	60	\$2.50						
School-teachers:								2	(a)	\$1.24
Japanese	M.									
Seed cutters:										
Japanese	M.	113	(a)	.93						
Seed cutters and planters:										
Chinese	M.	25	(a)	1.00						
Seed planters:										
Japanese	M.	21	(a)	1.10						
Shaft diggers:										
American	M.	13	60	4.25						
Chinese	M.				20	60	\$1.25			
English	M.	2	60	5.00						
Hawaiian	M.	10	60	1.25						
Irish	M.	4	60	5.00						
Japanese	M.	142	58.3	1.25	319	60	\$1.24	45	e 84	d .75
Portuguese	M.	4	54	1.16	1	60	1.07	3	60	.97
Total	M.	175	58.5	1.60	340	60	\$1.24	48	f 72.5	e .79
Shaft diggers' helpers:										
Part-Hawaiian	M.	2	60	.77						
Japanese	M.	15	60	.97						
Portuguese	M.	2	60	.77						
Total	M.	19	60	.92						
Sheep herders:										
Japanese	M.							6	60	.78
Skidway man, sawmill:										
German	M.	1	60	2.50						
Stablemen:										
American	M.				1	72	1.84	1	70	2.79
American negro	M.							1	70	.96
Chinese	M.	10	84	.81	5	72	.99	5	70	.96
German	M.				1	72	2.87			
Guam Islander	M.	1	(b)	1.31						
Hawaiian	M.	13	73.8	1.72	17	72	.79	14	70.4	f .84
Part-Hawaiian	M.	1	84	.85						
Japanese	M.	126	80.7	.74	210	72	.87	176	69.5	.84
Korean	M.							3	65	.71
Polish	M.	2	84	.85	2	72	1.00			
Porto Rican	M.				1	72	.77	2	70	.85
Portuguese	M.	25	81.8	.87	39	72	.99	20	67.3	.93
Total	M.	p 179	q 80.6	p .76	m 276	72	m .89	p 222	r 69.3	p .85
Steersmen, steam plow:										
American	M.							1	59	1.25
German	M.				2	60	1.15	1	59	1.00
Hawaiian	M.	3	67	.82	4	60	.84	5	59.6	.95
Japanese	M.	40	60.7	.85	57	60.3	.94	40	59.2	.91
Polish	M.	2	59	1.00						

a Not reported.

b Wages reported for 311 employees only, not including 8 employees who receive \$3 per foot.

c Days and hours are reported for 13 employees only.

d Wages reported for 13 employees only (contract workers).

e Wages reported for 332 employees only, not including 8 who receive \$3 per foot.

f Hours reported for 16 employees only.

g Wages reported for 16 employees only, 13 of whom are contract workers.

h Irregular.

i Including 2 boys.

j Including 2 boys; 1 employee receives also board, valued at \$18 per month.

k Hours reported for 123 employees only.

l Hours reported for 159 employees only.

m Including 5 boys.

n Including 6 boys.

o Hours reported for 18 employees only.

p See notes to details.

q Hours reported for 175 employees only.

r Hours reported for 203 employees only.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1903.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Pipe fitters:										
German	M.							1	72	\$1.50
Japanese	M.							2	66	1.42
Total	M.							3	68	1.46
Pipe fitter and plumber:										
Hawaiian	M.							1	60	2.87
Pipe fitters' helper:										
Japanese	M.							1	72	.77
Pipe men:										
Hawaiian	M.				2	60	\$1.90			
Plumber:										
German	M.				1	(a)	1.72			
Police men:										
American	M.	2	684	\$2.54	1	70	3.12	3	70.3	3.18
American negro	M.				1	70	2.30			
German	M.							3	71.7	2.12
Hawaiian	M.	3	684	1.42	7	72	1.98	6	68.3	1.83
Japanese	M.				1	70	1.15	1	84	.98
Norwegian	M.							1	(a)	2.68
Portuguese	M.							1	84	.98
Total	M.	5	684	1.87	10	71.4	1.35	15	73.6	2.10
Pump men:										
Hawaiian	M.	1	84	1.42						
Japanese	M.							1	81	.98
Ranchmen:										
Hawaiian	M.							18	70	1.08
Repair men, pump:										
Japanese	M.							2	72	1.25
Reservoir men:										
American	M.							1	84	2.96
Chinese	M.							3	62.2	1.00
German	M.	2	671	1.92			2.30	1	(a)	1.10
Hawaiian	M.	1	(a)	.61	1	70	1.15	1	70	1.15
Japanese	M.	29	673.8	.78	35	67.4	.91	32	62.5	1.86
Portuguese	M.	2	77.5	1.46	2	70	1.08	4	70	1.52
Total	M.	34	773.9	.88	39	67.7	.96	42	63.9	1.60
Riggers:										
American	M.				1	60	3.00			
Hawaiian	M.				1	63	1.15			
Japanese	M.				1	60	2.30	2	59	1.71
Scotch	M.				1	60	3.25			
Total	M.				4	60.8	2.42	2	59	1.71
Riggers, sawmill:										
American	M.	2	60	3.25						
Riveters:										
Japanese	M.	14	59	1.00						
Sawyer, sawmill:										
American	M.	1	60	4.00						

a Irregular.

b Hours reported for 1 employee only.

c Hours reported for 2 employees only.

d 3 employees receive additional salary from the government.

e 1 employee works only 3 hours per day, 6 days per week.

f 1 employee receives also additional salary from the government.

g Hours reported for 3 employees only.

h Hours reported for 14 employees only.

i Boy.

j Also board, valued at \$6 per month.

k Hours reported for 27 employees only.

l 1 employee receives also bonus of \$2 per month.

m Hours reported for 30 employees only.

n Hours reported for 41 employees only.

TABLE III.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Average hours per week.	Average wages per day.	Em- ploy- ees.	Average hours per week.	Average wages per day.	Em- ploy- ees.	Average hours per week.	Average wages per day.
Sawyer, sawmill, assistant:										
American	M.	1	60	\$2.50						
School-teachers:								2	(a)	\$1.24
Japanese	M.									
Seed cutters:										
Japanese	M.	113	(a)	.93						
Seed cutters and planters:										
Chinese	M.	25	(a)	1.00						
Seed planters:										
Japanese	M.	21	(a)	1.10						
Shaft diggers:										
American	M.	13	60	4.25						
Chinese	M.				20	60	\$1.25			
English	M.	2	60	5.00						
Hawaiian	M.	10	60	1.25						
Irish	M.	4	60	5.00						
Japanese	M.	142	58.3	1.25	319	60	\$1.24	45	84	4.75
Portuguese	M.	4	54	1.16	1	60	1.07	3	60	.97
Total	M.	175	58.5	1.60	340	60	\$1.24	48	72.5	\$1.79
Shaft diggers' helpers:										
Part-Hawaiian	M.	2	60	.77						
Japanese	M.	15	60	.97						
Portuguese	M.	2	60	.77						
Total	M.	19	60	.92						
Sheep herders:								6	69	.78
Japanese	M.									
Skidway man, sawmill:										
German	M.	1	60	2.50						
Stablemen:										
American	M.				1	72	1.34	1	70	2.79
American negro	M.							1	70	.96
Chinese	M.	10	84	.81	5	72	.99	5	70	.96
German	M.				1	72	2.87			
Guam Islander	M.	1	(b)	1.31						
Hawaiian	M.	13	73.8	1.72	17	72	.79	14	70.4	1.84
Part-Hawaiian	M.	1	84	.85						
Japanese	M.	126	80.7	.74	210	72	.87	176	69.5	.84
Korean	M.							3	65	.71
Polish	M.	2	84	.85	2	72	1.00			
Porto Rican	M.				1	72	.77	2	70	.85
Portuguese	M.	26	81.8	.87	39	72	.99	20	67.3	.93
Total	M.	179	80.6	.76	276	72	.89	222	69.3	.85
Steerers, steam plow:								1	59	1.25
American	M.									
German	M.				2	60	1.15	1	59	1.00
Hawaiian	M.	3	67	.82	4	60	.84	5	59.6	.95
Japanese	M.	40	60.7	.85	37	60.3	.94	40	59.9	.91
Polish	M.	2	59	1.00						

a Not reported.

b Wages reported for 311 employees only, not including 8 employees who receive \$3 per foot.

c Days and hours are reported for 13 employees only.

d Wages reported for 13 employees only (contract workers).

e Wages reported for 332 employees only, not including 8 who receive \$3 per foot.

f Hours reported for 16 employees only.

g Wages reported for 18 employees only, 13 of whom are contract workers.

h Irregular.

i Including 2 boys.

j Including 2 boys. 1 employee receives also board, valued at \$18 per month.

k Hours reported for 123 employees only.

l Hours reported for 159 employees only.

m Including 5 boys.

n Including 6 boys.

o Hours reported for 18 employees only.

p See notes to details.

q Hours reported for 175 employees only.

r Hours reported for 203 employees only.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Average hours per week.	Average wages per day.	Em- ploy- ees.	Average hours per week.	Average wages per day.	Em- ploy- ees.	Average hours per week.	Average wages per day.
Steerers, steam plow (concluded):										
Porto Rican.....	M.							4	61.5	\$0.73
Portuguese.....	M.	1	59	\$1.00	11	60	\$1.06	10	59.4	.90
Total.....	M.	46	61	.86	54	60.2	.97	61	59.9	.91
Stenographers:										
American.....	M.				1	66	3.83	1	59.5	3.83
American.....	F.							2	59.5	2.77
Total.....					1	66	3.83	3	59.5	3.13
Stock herders:										
American.....	M.				1	70	.85			
American negro.....	M.							1	70	1.64
American negro.....	F.							1	70	.66
German.....	M.							1	70	.63
Hawaiian.....	M.	3	(b)	.94	c 22	d 71.3	e .94	23	f 73.9	1.01
Japanese.....	M.				12	f 72.8	g .75	11	f 72.8	.80
Japanese.....	F.							1	70	.45
Porto Rican.....	M.							1	77	1.57
Portuguese.....	M.	1	(b)	1.31	e 5	72.8	e .76	49	f 70	1.82
Welsh.....	M.							1	59	2.11
Total.....		4	(b)	1.03	40	71.8	1.83	49	72.5	1.93
Stock herders and butchers:										
German.....	M.				1	70	2.63			
Hawaiian.....	M.				3	70	1.00			
Japanese.....	M.				1	70	.66			
Total.....	M.				5	70	1.24			
Stockmen:										
American.....	M.							1	70	3.29
German.....	M.							1	70	2.63
Hawaiian.....	M.							1	70	1.97
Scotch.....	M.				1	70	4.60			
Total.....	M.				1	70	4.60	3	70	2.63
Storekeepers:										
American.....	M.				20	60.6	4.69	18	69.1	4.16
Australian.....	M.							2	72	6.61
Canadian.....	M.				1	60	5.75	4	72	5.22
English.....	M.				6	60	4.74	3	67.7	5.43
German.....	M.							1	72	7.67
Hawaiian.....	M.				3	60	3.19			
Part-Hawaiian.....	M.							1	60	5.75
Japanese.....	M.							1	60	1.34
New Zealander.....	M.				1	60	3.83			
Norwegian.....	M.							1	54	8.83
Portuguese.....	M.				1	60	2.11			
Scotch.....	M.				2	60	4.69	3	72	3.56
Total.....	M.				34	60.4	4.49	34	68.8	4.58
Storekeepers' assistants:										
American.....	M.				1	60	2.49			
Scotch.....	M.							2	72	2.68

a 3 employees receive also bonus of 50 cents for each full week worked.

b Irregular.

c Including 1 boy.

d Hours reported for 21 employees only.

e Hours reported for 20 employees only.

f Hours reported for 5 employees only.

g 1 employee receives also board.

h Boy.

i Including 3 boys.

j Hours reported for 4 employees only.

k See notes to details.

l Hours reported for 32 employees only.

m Hours reported for 35 employees only.

n 1 employee receives also share of net profits.

TABLE III.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Average hours per week.	Average wages per day.	Em- ploy- ees.	Average hours per week.	Average wages per day.	Em- ploy- ees.	Average hours per week.	Average wages per day.
Sugar boilers:										
American.....	M.	7	71	a\$5.61	13	72	b\$5.33	17	71.4	c\$5.41
Austrian.....	M.	1	72	5.75				1	72	6.71
Canadian.....	M.	1	72	4.79	1	72	4.79	1	72	5.75
Chinese.....	M.	3	72	1.66				4	72	2.30
Danish.....	M.	1	72	5.75	1	72	6.39	2	71.5	6.65
English.....	M.	3	69.8	5.24	6	72	d5.65	3	71	5.43
French.....	M.	1	72	4.98	1	72	4.98	1	72	4.98
German.....	M.	12	d71.9	5.68	13	72	5.94	10	71.9	5.76
Hawaiian.....	M.				1	72	a6.39			
Part-Hawaiian.....	M.	3	71.3	4.98	3	72	5.30	4	72	5.12
Hawaiian, white.....	M.	1	72	4.79						
Irish.....	M.	1	72	7.67	1	72	4.98	3	72	6.45
Japanese.....	M.							1	60	1.91
New Zealand.....	M.				1	72	5.75			
Portuguese.....	M.	1	72	3.83	1	72	5.75	2	72	6.23
Scotch.....	M.	1	71	a5.75	1	72	5.56	1	72	4.98
Welsh.....	M.	2	66	5.11	3	72	e4.69	1	72	5.36
Total.....	M.	38	f71.1	b5.17	46	72	d5.56	51	71.5	a5.30
Sugar boilers' assistants:										
American.....	M.	3	71.3	3.00	4	72	2.63	4	72	4.74
Canadian.....	M.	1	72	3.83						
Chinese.....	M.	7	71	1.20	13	72	1.58	13	72	1.39
English.....	M.	1	71	a3.45	2	72	3.54			
German.....	M.	5	72	3.52	1	72	3.83	1	72	4.79
Hawaiian.....	M.	2	68	.84	1	72	3.83	1	72	1.91
Part-Hawaiian.....	M.	2	70	4.12				2	72	1.84
Irish.....	M.	1	72	2.87						
Japanese.....	M.	22	71.9	1.44	22	72	1.43	26	72	1.14
Norwegian.....	M.	1	72	2.87						
Polish.....	M.							1	72	3.26
Portuguese.....	M.	5	71.6	a1.62	10	72	a1.61	5	72	2.18
Scotch.....	M.	1	72	2.30						
Welsh.....	M.				1	72	5.36			
Total.....	M.	51	71.5	d1.96	54	72	a1.83	53	72	1.72
Sugar boilers' helpers:										
Japanese.....	M.	6	68	1.22						
Superintendent, mill construction:										
American.....	M.	1	(h)	6.32						
Superintendents, mill construction, assistant:										
American.....	M.	2	59	2.24						
English.....	M.	1	59	1.50						
Total.....	M.	3	59	1.99						
Superintendent, sawmill:										
American.....	M.	1	60	4.25						
Superintendents, store:										
American.....	M.	9	75	a4.58						
Australian.....	M.	1	(h)	a4.79						
English.....	M.	1	(h)	3.83						
Part-Hawaiian.....	M.	1	(h)	5.17						

a 1 employee receives also share of net profits.

b 2 employees receive also share of net profits.

c Not including 1 employee who receives \$1,000 per crop.

d Hours reported for 7 employees only.

e Not including 1 employee who receives \$2,000 per crop.

f Hours reported for 33 employees only.

g See notes to details.

h Irregular.

i Hours reported for 1 employee only.

j Hours reported for 2 employees only.

k Hours reported for 4 employees only.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Superintendents, store (concl'd):										
Japanese.....	M.	1	(a)	\$2.87						
Portuguese.....	M.	2	72	3.96						
Scotch.....	M.	3	(a)	4.64						
Total.....	M.	18	674	e4.43						
Superintending engineers:										
American.....	M.				2	72	\$9.96			
English.....	M.				1	72	15.97			
Total.....	M.				3	72	11.97			
Surveyors:										
American.....	M.	9	(a)	6.58	10	(a)	6.94	9	60.1	\$7.58
Danish.....	M.	1	(a)	3.83	1	(a)	4.60	1	59	2.87
German.....	M.	1	(a)	4.79				1	60	2.87
Hawaiian.....	M.	1	(a)	4.00				1	60	1.53
Part-Hawaiian.....	M.	1	(a)	2.30						
Irish.....	M.				1	(a)	10.00			
Japanese.....	M.							1	59.5	2.30
Norwegian.....	M.				1	(a)	7.67			
Portuguese.....	M.				1	(a)	4.23	1	59.5	4.79
Total.....	M.	13	(a)	5.70	14	(a)	e6.85	14	59.9	d5.90
Surveyors' assistants:										
American.....	M.				1	(a)	3.83			
Japanese.....	M.							1	60	1.91
Surveyors' helpers:										
American.....	M.	1	60	1.50						
German.....	M.	f1	(a)	f.57						
Hawaiian.....	M.	6	(a)	.84	8	g60	1.08	13	60	.92
Part-Hawaiian.....	M.	1	60	1.53				6	61.5	.95
Japanese.....	M.	11	d65.5	.90	10	h60	1.16	13	59.5	.93
Portuguese.....	M.	4	g72	1.02	13	(a)	i.93	6	59.9	.97
Total.....	M.	i24	j66.3	i.94	i21	k60	i1.10	28	60	.94
Swampers:										
Japanese.....	M.							4	59	.77
Teachers, kindergarten:										
American.....	F.				2	30	3.12	2	30	2.39
Teachers, kindergarten, assistant:										
Hawaiian.....	F.				2	30	.62			
Teamsters and cultivators:										
American.....	M.	2	65	1.63	2	66	1.39			
Austrian.....	M.	2	60	1.09						
Chinese.....	M.	29	66.2	.98	11	66	.92	14	59.6	.94
Hawaiian.....	M.	193	61.6	1.86	389	66	.92	m378	60.1	m.86
Part-Hawaiian.....	M.	4	62.5	1.15	2	66	1.34			
Irish.....	M.							1	59.5	1.00
Japanese.....	M.	963	n61.4	.78	1,143	66	.83	o1,014	59.4	o.79
Korean.....	M.							8	59	.72
Polish.....	M.	16	69.4	.89	8	66	.94	15	59.7	.88
Porto Rican.....	M.				29	66	.79	47	59.5	p.81

a Irregular.

b Hours reported for 6 employees only.

c See notes to details.

d 1 employee receives also board, valued at \$20 per month.

e 1 employee receives also board.

f Boy.

g Hours reported for 3 employees only.

h Hours reported for 4 employees only.

i Including 1 boy.

j Hours reported for 11 employees only.

k Hours reported for 7 employees only.

l Including 4 boys.

m Including 9 boys.

n Hours reported for 962 employees only.

o Including 2 boys.

p 1 employee receives also bonus of \$2 for every 28 days worked.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Teamsters and cultivators (con- cinded).										
Portuguese.....	M.	a 430	61	d \$0.90	b 545	66	e \$0.95	c 537	59.6	f \$0.92
South American.....	M.				1	66	.84			
South Sea Islander.....	M.							4	60	.80
Spanish.....	M.	2	60	.73						
Welsh.....	M.	1	59	2.11						
Total.....	M.	41,642	e 61.3	d .83	62,130	66	b .88	c 62,018	59.6	d .84
Teamsters and cultivators' helpers:										
Hawaiian.....	M.							f 10	59	f .62
Portuguese.....	M.							f 42	59.3	f .55
Total.....	M.							f 52	59.3	f .56
Timekeepers:										
American.....	M.	12	59	3.21	14	60	k 3.09	16	61.4	3.51
Austrian.....	M.				1	60	2.68	1	60	2.87
Bohemian.....	M.	1	([†])	2.30						
English.....	M.				2	60	j 2.68	3	60	3.70
German.....	M.	2	59	3.98	6	60	k 2.97	4	59.4	3.16
Hawaiian.....	M.	3	([†])	1.73	4	60	1.32	3	59	k 1.85
Part-Hawaiian.....	M.	2	59	2.08	5	60	2.37	1	60	3.06
Hawaiian, white.....	M.	1	([†])	1.53						
Japanese.....	M.	1	([†])	1.63						
Norwegian.....	M.	1	([†])	3.06	2	66	2.68	1	54	2.49
Polish.....	M.	1	([†])	3.83						
Portuguese.....	M.				1	60	2.30	1	60	2.87
Scotch.....	M.	1	([†])	j 2.68	5	60	j 2.80	8	59.1	3.15
Total.....	M.	25	59.7	j 2.83	40	60.3	d 2.70	38	60.1	k 3.21
Timekeepers, assistant:										
American.....	M.	2	([†])	2.10						
Tinsmith:										
German.....	M.				1	60	2.00			
Trash balers:										
Japanese.....	M.							m 30	59	m 1.50
Walters:										
Japanese.....	M.				1	70	.66			
Warehousemen:										
American.....	M.	2	59	3.45	2	60	2.20	1	59.5	3.83
English.....	M.							1	59	2.30
German.....	M.	4	63.7	1.81				1	59	1.53
Hawaiian.....	M.	5	61.6	1.50	5	60	1.38	1	59	1.00
Part-Hawaiian.....	M.	2	59	1.72						
Jamaican.....	M.	1	59	j 1.34						
Japanese.....	M.				17	60	.88	22	59.2	.86
Norwegian.....	M.	1	60	2.40						
Porto Rican.....	M.							1	60	1.00
Portuguese.....	M.	3	59.7	1.41	3	60	1.13	4	65.6	1.44
Scotch.....	M.	1	60	3.06				1	59	3.83
Total.....	M.	19	n 61	j 1.90	27	60	1.10	32	60	1.20
Warehousemen's helper:										
Japanese.....	M.	1	60	.92						

a Including 12 boys.

b Including 19 boys.

c Including 23 boys.

d See notes to details.

e Hours reported for 1,641 employees only.

f Boys.

g Hours reported for 1 employee only.

h 1 employee receives also board.

i Irregular.

j 1 employee receives also share of net profits.

k 1 employee receives also board, valued at \$20 per month.

l Hours reported for 3 employees only.

m Contract workers.

n Hours reported for 16 employees only.

TABLE III.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Continued.

Occupation and nationality.	Sex.	1900-1901.			1902.			1903.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Watchmen:										
American	M.	3	84	\$1.53 ^a	4	73.5	\$1.49	2	84	\$1.24
American negro	M.				1	84	1.50			
Canadian	M.	1	84	1.31 ^b						
Chinese	M.	1	84	.72	2	77	.69 ^c	1	84	.77
English	M.				1	84	1.31 ^b	2	84	1.49
German	M.	4	84	1.40 ^d	5	70	1.08 ^e	5	84	1.25
Greek	M.	1	84	1.48						
Hawaiian	M.	44	84	1.78 ^f	4	70	1.03	8	84	.95
Part-Hawaiian	M.	2	84	1.25						
Japanese	M.	11	84.6	.70	33	73.8	.88 ^g	24	84	.91
Norwegian	M.	3	84	1.19	1	84	1.15	2	84	1.40
Porto Rican	M.							1	84	.82
Portuguese	M.	23	84	.95 ^h	24	71.8	1.04 ⁱ	20	84	.99 ^j
Scotch	M.				1	70	1.64 ^k			
Spanish	M.	2	84	.92						
Total	M.	155	84.1	1.09	76	73.1	1.01	65	84	1.00
Water tenders, mill:										
Chinese	M.							4	71.8	.95 ^l
Hawaiian	M.							1	72	.88
Japanese	M.				7	72	1.02 ^m	42	71.8	.93 ⁿ
Portuguese	M.				3	72	1.00 ^o	3	72	1.28
Total	M.				10	72	1.02	50	71.8	.95
Water tenders, pump:										
Japanese	M.							4	84	1.01 ^p
Water tenders, steam plow:										
Chinese	M.	1	59	.92 ^q	2	66	1.00			
Hawaiian	M.	7	62.9	.81 ^r				4	59.5	.99 ^s
Japanese	M.	18	61.3	.92	8	66	.92	15	60.2	.92 ^t
Polish	M.	3	59	1.00						
Portuguese	M.	7	59.9	.94 ^u	8	66	.98	9	60.2	.95 ^v
Total	M.	36	61.1	.91	18	66	.95 ^w	28	60.1	.95
Well borers:										
American	M.				7	60	3.30	1	60	3.10
Japanese	M.							4	59	1.08 ^x
Norwegian	M.				1	60	2.50	1	59	2.50
Portuguese	M.				5	60	1.30 ^y	4	60	.88 ^z
Total	M.				13	60	2.47 ^{aa}	10	59.5	1.79
Wharf hands:										
American	M.				1	60	2.11			
Chinese	M.	1	59	.73				1	60	1.09
German	M.				3	60	1.53 ^{ab}			
Hawaiian	M.	37	59.3	1.03	47	(^c)	1.13	50	59.6	.99 ^{ac}
Japanese	M.	102	59.2	.88	63	(^d)	.94 ^{ad}	107	59.4	.84
Porto Rican	M.				15	60	.76	4	59	.86 ^{ae}
Portuguese	M.				4	60	1.49	18	59.3	.89 ^{af}
Total	M.	140	59.2	.92	138	60	1.02 ^{ag}	180	59.4	.89

^a Hours reported for 4 employees only.^b 2 employees receive also board.^c 1 employee receives also board, valued at \$20 per month.^d Including 1 pensioner.^e Hours reported for 32 employees only.^f Hours reported for 23 employees only.^g Hours reported for 74 employees only.^h Hours reported for 64 employees only.ⁱ Hours reported for 2 employees only.^j Irregular.^k Hours reported for 27 employees only.^l Hours reported for 106 employees only.^m Hours reported for 7 employees only.ⁿ Hours reported for 1 employee only.^o Hours reported for 3 employees only.^p Hours reported for 11 employees only.^q Hours reported for 141 employees only.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Continued.

SUGAR PLANTATIONS (53 ESTABLISHMENTS)—Concluded.

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Wharfingers:										
American	M.	2	60	\$2.01				1	59	\$2.65
Canadian	M.	3	60	2.68				1	59	2.30
Dutch	M.	1	60	2.30	1	60	\$2.30			
English	M.							2	59.5	2.87
German	M.	2	(c)	2.26				4	60.2	2.25
Hawaiian	M.	1	60	2.24	1	60	2.68	e	65.5	1.32
Japanese	M.							1	60	2.30
Portuguese	M.	3	60	1.98				1	59	1.54
Russian	M.				1	60	2.30			
Scotch	M.	2	f	3.06	2	60	3.93	3	59.3	3.58
Swedish	M.				1	60	2.39			
Total	M.	14	59.9	2.37	6	60	2.92	e	60.4	2.46
Wheelwright:										
American	M.	1	58	4.00						
Wheelwright's helper:										
Japanese	M.	1	58	1.25						
Whitewashers:										
Japanese	M.				3	60	1.00			
Wipers and oilers, locomotive:										
Chinese	M.	1	66	.92						
Fijian	M.	1	60	1.00						
German	M.	1	59	.84						
Hawaiian	M.	2	60	1.74	3	60	1.10	2	51	.96
Japanese	M.	15	65.5	.94	19	60	.95	18	61.9	.89
Porto Rican	M.							1	59	1.00
Portuguese	M.	3	63	1.05	3	60	1.08	1	60	.92
Spanish	M.							1	60	.92
Total	M.	23	64.2	1.93	25	60	.98	23	60.7	.90
Wood choppers:										
Chinese	M.							8	(c)	1.00
Hawaiian	M.				1	60	.80			
Japanese	M.				6	60	.65	15	(c)	(i)
Portuguese	M.							3	60	m. 77
Total	M.				7	60	.67	26	60	e. 86
Yard boys:										
American negro	M.							1	84	.84
Chinese	M.							7	68.4	.74
Hawaiian	M.							1	59	.50
Japanese	M.				3	60	.47	66	68.9	q. 71
Norwegian	M.							1	70	.98
Porto Rican	M.				1	60	.81			
Portuguese	M.							6	60.7	.93
Total	M.				4	60	.43	82	68.3	q. 73

a Hours reported for 2 employees only.

b 1 employee receives also board, valued at \$20 per month.

c Irregular.

d Hours reported for 3 employees only.

e Including 1 boy.

f Hours reported for 1 employee only.

g Hours reported for 9 employees only.

h Hours reported for 14 employees only.

i See notes to details.

j Including 1 cripple.

k Contract workers.

l Not reported.

m Wages reported for 2 employees only, not including 1 who receives 75 cents per cord.

n Including 8 contract workers.

o Wages reported for 10 employees only. See notes to details.

p Hours reported for 60 employees only.

q Including 2 employees who receive also board, valued at \$7 per month.

r Hours reported for 76 employees only.

TABLE II.—OCCUPATIONS, AVERAGE WAGES, ETC.—Concluded.

TANNERY (1 ESTABLISHMENT).

Occupation and nationality.	Sex.	1900-1901.			1902.			1905.		
		Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.	Em- ploy- ees.	Aver- age hours per week.	Aver- age wages per day.
Beamsters:										
Chinese.....	M.	.....	.....	.....	.....	.....	.....	2	53	\$1.20½
Japanese.....	M.	.....	.....	.....	.....	.....	.....	2	53	1.12½
Total.....	M.	.....	.....	.....	.....	.....	.....	4	53	1.16½
Carpenter:										
American.....	M.	.....	.....	.....	.....	.....	.....	1	53	3.50
Engineer:										
Chinese.....	M.	.....	.....	.....	.....	.....	.....	1	53	1.66½
Foreman:										
Swedish.....	M.	.....	.....	.....	.....	.....	.....	1	53	5.75
Laborers:										
Chinese.....	M.	.....	.....	.....	.....	.....	.....	3	53	1.11
Japanese.....	M.	.....	.....	.....	.....	.....	.....	2	53	1.04½
Portuguese.....	M.	.....	.....	.....	.....	.....	.....	1	53	1.08½
Total.....	M.	.....	.....	.....	.....	.....	.....	6	53	1.08½
Machine operator:										
German.....	M.	.....	.....	.....	.....	.....	.....	1	53	2.00
Shaver:										
Chinese.....	M.	.....	.....	.....	.....	.....	.....	1	53	1.33½
Splitter:										
Chinese.....	M.	.....	.....	.....	.....	.....	.....	1	53	1.33½
Tablemen:										
German.....	M.	.....	.....	.....	.....	.....	.....	1	53	1.50
Hawaiian.....	M.	.....	.....	.....	.....	.....	.....	1	53	1.50
Total.....	M.	.....	.....	.....	.....	.....	.....	2	53	1.50

TABLE III.—RETAIL PRICES OF COMMODITIES, 1890 TO 1905.

[For explanation and discussion of this table see pages 514 and 515.]

FOOD.

Year.	Baking powder.		Beans, dry.				Beef, fresh.				
	"Royal," per pound, Hilo, Hawaii.	"Royal," per pound, Honolu- lu, Oahu.	Navy, per pound, Hilo, Hawaii.	Navy, per pound, Kauai.	Navy, per pound, Kauai.	Navy, per pound, Kauai.	Chuck roast, per pound, Honolu- lu, Oahu.	Loin roast, per pound, Honolu- lu, Oahu.	Loin steak, per pound, Honolu- lu, Oahu.	Rib roast, per pound, Honolu- lu, Oahu.	Round steak, per pound, Honolu- lu, Oahu.
1890....	\$0.6000		\$0.0500	\$0.0500			\$0.1000	\$0.1500	\$0.1250	\$0.1250	\$0.1000
1891....	.6000		.0500	.0500			.1000	.1500	.1250	.1250	.1000
1892....	.6000		.0500	.0500			.1000	.1500	.1250	.1250	.1000
1893....	.6000		.0500	.0500			.1000	.1500	.1250	.1250	.1000
1894....	.6000		.0500	.0500			.1000	.1500	.1250	.1250	.1000
1895....	.6000		.0500	.0500			.1000	.1500	.1250	.1250	.1000
1896....	.6000		.0500	.0500			.0800	.1500	.1500	.1000	.1000
1897....	.6000		.0500	.0500			.0800	.1500	.1500	.1000	.1000
1898....	.6000		.0500	.0521			.1000	.1800	.1500	.1250	.1000
1899....	.6000		.0500	.0625			.1250	.2100	.1500	.1500	.1000
1900....	.6000		.0500	.0625			.1479	.1875	.1875	.1650	.1492
1901....	.6000		.0500	.0521			.1250	.2025	.2025	.1750	.1400
1902....	.6000		.0500	.0500			.1250	.2250	.2250	.2000	.1500
1903....	.6000	\$0.5000	.0500	.0500	\$0.0500	\$0.0600	.1500	.2250	.2250	.2000	.1500
1904....	.6000	.5000	.0500	.0500	.0500	.0500	.1500	.2083	.2083	.2000	.1500
1905....	.6000	.5000	.0500	.0500	.0500	.0500	.1500	.2000	.2000	.2000	.1500

Year.	Beef, corned, per pound, Honolu- lu, Oahu.	Beef, corned, canned, per 2- lb. can, Kauai.	Butter.				Cheese.				
			Cream- ery, Califor- nia, per pound, Honolu- lu, Oahu.	Cream- ery, Califor- nia, per pound, Kauai.	Cream- ery, Califor- nia, per pound, Kauai.	Cream- ery, Califor- nia, or best, per pound, Honolu- lu, Oahu.	Cream- ery, Hawaii, per pound, Honolu- lu, Oahu.	Table, per pound, Hilo, Hawaii.	Cream, per pound, Hilo, Hawaii.	Cream, Califor- nia, per pound, Honolu- lu, Oahu.	
1890.....	\$0.1000		\$0.4729	\$0.5000					\$0.3875	\$0.2458	
1891.....	.1000		.4063	.5000					.4167	.2208	
1892.....	.1000		.4500	.5000					.4042	.2000	
1893.....	.1000		.5375	.5000					.3667	.2000	
1894.....	.1000		.4375	.5000					.3500	.2000	
1895.....	.1000		.3979	.5000					.3458	.2000	
1896.....	.1000		.4354	.5000					.3458	.2000	
1897.....	.1000		.3938	.5000					.2833	.2000	
1898.....	.1000		.4021	.5000					.3208	.2000	
1899.....	.1083		.3813	.5000					.3083	.2000	
1900.....	.1458		.4167	.5000				\$0.6000	.3208	.2000	
1901.....	.1125		.4083	.5000				.6000	.3458	.2000	
1902.....	.1250		.4208	.4500				.6000	.3500	.2000	
1903.....	.1500	\$0.3000	.4208	.4167	\$0.4000	\$0.3500	\$0.4500	.5000	.3958	.2000	\$0.2000
1904.....	.1500	.2500	.3750	.4000	.4000	.3500	.3750	.5000	.3875	.2000	.2000
1905.....	a. 1313	.2500	b. 3600	c. 4250	d. 4167	.3500	e. 3600	.5000	.3500	.2000	.2000

a Price in Jan., \$0.15, and from Feb. to Apr., \$0.12½.

b Price in Jan., \$0.40, and from Feb. to May, \$0.35.

c Price in Jan. and Feb., \$0.40, and in Mar. and Apr., \$0.45.

d Price in Jan. and Feb., \$0.40, and in Mar., \$0.45.

e Price in Jan. and from Mar. to May, \$0.35, and Feb., \$0.40.

TABLE III.—RETAIL PRICES OF COMMODITIES, 1890 TO 1905—Continued.

FOOD—Continued.

Year.	Cheese.					Coffee, native.					Corn, canned, per 1-lb. can, Honolulu, Oahu.
	Cream, California, per pound, Honolulu, Oahu.	Cream, California, per pound, Kauai.	Cream, California, per pound, Kauai.	Cream, California, per pound, Maui.	Green, per pound, Hilo, Hawaii.	Green, per pound, Kauai.	No. 1, green, per pound, Kauai.	No. 1, green, per pound, Kauai.	No. 1, roasted and ground, per pound, Honolulu, Oahu.	Roasted and ground per pound, Honolulu, Oahu.	
1890.	\$0.2000						\$0.2500			\$0.3500	
1891.	.2000						.2300			.3500	
1892.	.2000						.2458			.3500	
1893.	.2000						.2500			.3500	
1894.	.2000						.2500			.3500	
1895.	.2000						.2500			.3500	
1896.	.2000						.2500			.3400	
1897.	.2000						.2500			.3194	
1898.	.2000						.2458			.3000	
1899.	.2000						.2000			.3000	
1900.	.2000						.2000			.3000	
1901.	.2000			\$0.2000			.2000			.3000	
1902.	.2000			.2000			.2000			.2708	
1903.	.2000	\$0.2000	\$0.2000	.2000		\$0.1800	.1625	\$0.2000	\$0.2500	.2500	\$0.1250
1904.	.2000	.2000	.2000	.2000	\$0.1500	.1500	.1500	.2000	.2500	.2500	.1250
1905.	.2000	.2000	.2000	.2000	.1500	.1500	.1500	.2500	.2500	.2500	.1250

Year.	Corn meal.					Eggs, fresh.			Fish, canned, red salmon, per 1-lb. can, Honolulu, Oahu.	Fish, salt.	
	In packages, per pound, Hilo, Hawaii.	In packages, per pound, Honolulu, Oahu.	In packages, per pound, Honolulu, Oahu.	In packages, per pound, Kauai.	In packages, per pound, Kauai.	Per dozen, Honolulu, Oahu.	Per dozen, Honolulu, Oahu.	Per dozen, Kauai.	Cod, per pound, Kauai.	Cod, per pound, Kauai.	
1890.			\$0.0500	\$0.0500			\$0.5000	\$0.4000		\$0.1000	
1891.			.0500	.0500			.5000	.4000		.1000	
1892.			.0500	.0450			.5000	.4000		.1000	
1893.			.0500	.0450			.4875	.4000		.1000	
1894.			.0500	.0450			.4500	.4000		.1000	
1895.			.0433	.0450			.4500	.4000		.1000	
1896.			.0400	.0450			.4000	.4000		.1000	
1897.			.0400	.0450			.3708	.4000		.1000	
1898.			.0400	.0450			.3500	.4000		.1000	
1899.			.0400	.0450			.4000	.4000		.1000	
1900.			.0358	.0450			.4292	.4000		.1000	
1901.	\$0.0400		.0350	.0450			.5000	.5000		.1000	
1902.	.0400		.0350	.0450			.5250	.5000		.1000	
1903.	.0400	\$0.0500	.0350	.0450	\$0.0450	\$0.5083	.4500	.4000	\$0.1250	.0875	\$0.0833
1904.	.0400	.0500	.0350	.0450	.0450	.4958	.4458	.4000	.1250	.0833	.0625
1905.	.0400	.0500	.0350	.0450	.0450	a. 4167	.3500	.4000	.1250	.0833	.0625

a Price in Jan., \$0.55; in Feb., Mar., May, and June, \$0.40; and in Apr., \$0.35.

TABLE III.—RETAIL PRICES OF COMMODITIES, 1890 TO 1905—Continued.

FOOD—Continued.

Year.	Fish, salt.				Flour, wheat.						
	Cod, cheap- est grade, per pound, Kauai.	Salmon, per pound, Hilo, Hawaii.	Salmon, per pound, Kauai.	Salmon, per pound, Kauai.	Fam- ily, best, per pound, Honolu- lu, Oahu.	Fam- ily, best, in 48- lb. bags, per pound, Kauai.	Fam- ily, No. 1, per pound, Honolu- lu, Oahu.	Fam- ily, No. 1, in 48- lb. bags, per pound, Hilo, Hawaii.	Fam- ily, No. 1, in 48- lb. bags, per pound, Kauai.	Fam- ily, No. 1, in 48- lb. bags, per pound, Kauai.	Graham, per pound, Honolu- lu, Oahu.
1890.....		\$0.1000			\$0.0300			\$0.0306	\$0.0341		
1891.....		.1000			.0300			.0342	.0349		
1892.....		.1000			.0300			.0334	.0347		
1893.....		.1000			.0300			.0293	.0333		
1894.....		.1000			.0292			.0255	.0326		
1895.....		.1000			.0271			.0254	.0296		
1896.....		.1000			.0267			.0269	.0278		
1897.....		.1000			.0329			.0324	.0333		
1898.....		.1000			.0300			.0324	.0355		
1899.....		.1000			.0271			.0264	.0296		
1900.....		.1000			.0250			.0265	.0306		
1901.....		.1000			.0250			.0265	.0296		
1902.....		.1000			.0250			.0286	.0290		
1903.....	\$0.0800	.1000	\$0.0833	\$0.0833	.0296	\$0.0292	\$0.0400	.0269	.0313	\$0.0323	\$0.0500
1904.....	.0800	.1000	.0833	.0833	.0280	.0299	.0400	.0286	.0313	.0323	.0500
1905.....	.0800	.1000	.0833	.0833	.0280	.0313	.0400	.0292	.0313	.0333	.0500

Year.	Flour, rye, per pound, Kauai.	Fruit.		Lard.					Maca- roni, per pound, Kauai.	Milk, con- densed, Best, per 1-lb can, Kauai.
		Apples, evapo- rated, per pound, Kauai.	Prunes, dried, per pound, Honolu- lu, Oahu.	Pure leaf, in pails, per pound, Honolu- lu, Oahu.	"Silver Leaf," in pails, per pound, Honolu- lu, Oahu.	In pails, per pound, Hilo, Hawaii.	In pails, per pound, Kauai.	In pails, per pound, Kauai.	In pails, per pound, Kauai.	
1890.....				\$0.1233		\$0.1483	\$0.1417			
1891.....				.1275		.1408	.1271			
1892.....				.1300		.1392	.1250			
1893.....				.1300		.1517	.1479			
1894.....				.1300		.1400	.1375			
1895.....				.1367		.1400	.1250			
1896.....				.1325		.1300	.1179			
1897.....				.1450		.1000	.1142			
1898.....				.1467		.1000	.1183			
1899.....				.1400		.1000	.1167			
1900.....				.1483		.1033	.1100			
1901.....				.1500		.1200	.1100			
1902.....				.1500		.1200	.1213			
1903.....	\$0.0500	\$0.1600	\$0.1250	.1500	\$0.1683	.1200	.1100	\$0.1100	\$0.1300	\$0.1000
1904.....	.0700	.1250	.1250	.1450	.1550	.1200	.1000	.1100	.1000	.2000
1905.....	.0750	.1250	.1250	.1400	.1500	.1200	.1000	a.1067	.1000	.2000

a Price in Jan. and Feb., \$0.11, and in Mar., \$0.10.

TABLE III.—RETAIL PRICES OF COMMODITIES, 1890 TO 1905—Continued.

FOOD—Continued.

Year.	Milk, condensed.	Milk, fresh, delivered, per quart, Honolulu, Oahu.	Molasses, New Orleans, per gallon, Honolulu, Oahu.	Mutton and lamb.					Oatmeal, in packages, per pound, Hilo, Hawaii.	Pork, fresh.	
	Eagle, per 1-lb. can, Kauai.			Lamb, fore quarter, per pound, Honolulu, Oahu.	Lamb, hind quarter, per pound, Honolulu, Oahu.	Mutton, chops, per pound, Honolulu, Oahu.	Mutton, leg, per pound, Honolulu, Oahu.	Mutton, roast, per pound, Honolulu, Oahu.		Chops, per pound, Honolulu, Oahu.	Roast, per pound, Honolulu, Oahu.
1890.....				\$0.1800	\$0.2000	\$0.1500	\$0.1500	\$0.1500		\$0.2500	\$0.2500
1891.....				.1800	.2000	.1500	.1500	.1500		.2500	.2500
1892.....				.1800	.2000	.1500	.1500	.1500		.2500	.2500
1893.....				.1800	.2000	.1500	.1500	.1500		.2500	.2500
1894.....				.1800	.2000	.1500	.1500	.1500		.2500	.2500
1895.....				.1800	.2000	.1500	.1500	.1500		.2500	.2500
1896.....				.1800	.2000	.1750	.1500	.1750		.2500	.2500
1897.....				.1800	.2000	.1750	.1500	.1750		.2500	.2500
1898.....				.1800	.2000	.1750	.1500	.1750		.2000	.2000
1899.....				.1800	.2000	.1750	.1500	.1750		.2000	.1900
1900.....		\$0.1200		.1800	.2000	.1750	.1500	.1750		.2000	.1800
1901.....		.1200		.1800	.2000	.1875	.1642	.1875	\$0.0500	.2100	.1983
1902.....		.1200		.1800	.2000	.2000	.1800	.2000	.0500	.2200	.2200
1903.....	\$0.2000	.1200	\$1.0000	.1800	.2000	.2000	.1800	.2000	.0500	.2200	.2200
1904.....	.2000	.1000	.9917	.1800	.2000	.2000	.1800	.2000	.0500	.2100	.2057
1905.....	.2000	.1000	a .8500	.1800	.2000	.2000	.1800	.2000	.0500	.2000	.2000

Year.	Pork, fresh.	Pork, salt.							Rice.		
	Sausage, per pound, Honolulu, Oahu.	Bacon, break-fast, per pound, Honolulu, Oahu.	Bacon, break-fast, per pound, Kauai.	Bacon, break-fast, per pound, Kauai.	Ham, sugar-cured, per pound, Honolulu, Oahu.	Ham, sugar-cured, per pound, Kauai.	Pork, salt, per pound, Hilo, Hawaii.	Pork, salt, per pound, Honolulu, Oahu.	Pork, salt, per pound, Honolulu, Oahu.	Per pound, Honolulu, Oahu.	Per pound, Kauai.
1890.....	\$0.2500	\$0.2000			\$0.2000		\$0.1313		\$0.2000	\$0.0525	
1891.....	.2500	.2000			.2000		.1396		.2000	.0513	
1892.....	.2500	.2000			.2000		.1417		.2000	.0500	
1893.....	.2500	.1850			.2000		.1500		.2000	.0567	
1894.....	.2500	.1900			.1950		.1479		.2000	.0550	
1895.....	.2500	.2000			.1800		.1500		.2000	*.0475	
1896.....	.2500	.1817			.1800		.1458		.2000	.0454	
1897.....	.2500	.1917			.1725		.1250		.2000	.0542	
1898.....	.2208	.1842			.1750		.1250		.2000	.0588	
1899.....	.2000	.1892			.1800		.1458		.2000	.0683	
1900.....	.2000	.1850			.1742		.1500		.2000	.0700	
1901.....	.2000	.1850			.1775		.1500		.2000	.0650	
1902.....	.2000	.2042			.1950		.1800		.2000	.0558	
1903.....	.2000	.2075	\$0.2200	\$0.2000	.1950	\$0.1800	.1675	\$0.2000	.2000	.0508	\$0.0000
1904.....	.2000	.2075	.2200	.2000	.1800	.2000	.1575	.2000	.2000	.0329	.0000
1905.....	.2000	.2000	b .2133	.2000	.1800	.2000	.1500	.2000	.2000	.0325	.0400

a Price in Jan., \$0.80, and in Feb., \$0.90.

b Price in Jan., \$0.22, and in Feb. and Mar., \$0.21.

TABLE III.—RETAIL PRICES OF COMMODITIES, 1890 TO 1905—Continued.

FOOD—Continued.

Year.	Rice.			Salt.		Spices.		Sugar.			
	In 100-lb. bags, per pound, Hilo, Hawaii.	In 100-lb. bags, per pound, Kauai.	In 100-lb. bags, per pound, Kauai.	Table, in bags, per pound, Honolulu, Oahu.	Table, in bags, per pound, Honolulu, Oahu.	Mustard, ground, per pound, Honolulu, Oahu.	Pepper, ground, per pound, Honolulu, Oahu.	Brown, No. 1, per pound, Hilo, Hawaii.	Brown, No. 1, per pound, Honolulu, Oahu.	Brown, No. 1, per pound, Kauai.	Brown, No. 1, per pound, Kauai.
1890.....	\$0.0517	\$0.0440	.....	\$0.0250	.....	\$0.7500	\$0.5000	\$0.0500	\$0.0500	\$0.0550	.....
1891.....	.0506	.0440	.....	.0250	.....	.7500	.5000	.0500	.0500	.0550	.....
1892.....	.0497	.0490	.....	.0250	.....	.7500	.5000	.0500	.0500	.0550	.....
1893.....	.0481	.0415	.....	.0250	.....	.7500	.5000	.0500	.0500	.0500	.....
1894.....	.0449	.0440	.....	.0250	.....	.7500	.4000	.0500	.0500	.0500	.....
1895.....	.0472	.0442	.....	.0250	.....	.7500	.4000	.0500	.0500	.0500	.....
1896.....	.0408	.0400	.....	.0250	.....	.7500	.4000	.0500	.0500	.0500	.....
1897.....	.0473	.0493	.....	.0250	.....	.7500	.4000	.0500	.0500	.0500	.....
1898.....	.0556	.0525	.....	.0250	.....	.7500	.4000	.0500	.0500	.0500	.....
1899.....	.0604	.0565	.....	.0250	.....	.7000	.4000	.0500	.0500	.0500	.....
1900.....	.0592	.0575	.....	.0250	.....	.6500	.4000	.0500	.0500	.0525	.....
1901.....	.0574	.0548	.....	.0250	.....	.6500	.4000	.0500	.0500	.0550	.....
1902.....	.0501	.0481	.....	.0250	.....	.6500	.4000	.0500	.0500	.0550	.....
1903.....	.0545	.0529	\$0.0500	.0250	\$0.0300	.6500	.4000	.0500	.0500	.0550	\$0.0500
1904.....	.0460	.0463	.0433	.0250	.0300	.6500	.4000	.0500	.0500	.0508	.0500
1905.....	a, 0338	b, 0356	c, 0317	.0250	.0300	.6500	.4000	.0500	.0500	d, 0510	e, 0567

Year.	Sugar.				Tea.		
	Brown, No. 1, per pound, Kauai.	Brown, No. 1, in 125-lb. bags, per pound, Kauai.	Brown, washed, per pound, Maui.	Granulated, per pound, Honolulu, Oahu.	Granulated, sold in 30-lb. lots, per pound, Honolulu, Oahu.	English break-fast, per pound, Honolulu, Oahu.	English break-fast, per pound, Kauai.
1890.....				\$0.0600	.....	\$0.7500	.....
1891.....				.0617	.....	.7500	.....
1892.....				.0700	.....	.7500	.....
1893.....				.0700	.....	.7500	.....
1894.....				.0700	.....	.7500	.....
1895.....				.0667	.....	.7500	.....
1896.....				.0600	.....	.7500	.....
1897.....				.0600	.....	.7500	.....
1898.....				.0600	.....	.7500	.....
1899.....				.0567	.....	.7500	.....
1900.....				.0692	.....	.7500	.....
1901.....			\$0.0500	.0708	.....	.7500	.....
1902.....			.0500	.0600	.....	.7500	.....
1903.....	\$0.0475	\$0.0480	.0500	.0600	\$0.0721	.7500	\$0.5500
1904.....	.0475	.0480	.0500	.0650	.0750	.7500	.5500
1905.....	.0475	f, 0547	.0550	.0700	.0750	.7500	.5500

a Price in Jan. and Feb., \$0.04; in Mar., \$0.03½; in Apr., \$0.03½, and in May, \$0.03½.

b Price in Jan. and Feb., \$0.03½; in Mar., \$0.03½, and in Apr., \$0.03½.

c Price in Jan., \$0.03½, and in Feb. and Mar., \$0.03.

d Price in Jan. and Feb., \$0.04½, and from Mar. to May, \$0.05½.

e Price in Jan., \$0.05, and in Feb. and Mar., \$0.06.

f Price in Jan., \$0.04½, and in Feb. and Mar., \$0.05½.

TABLE III.—RETAIL PRICES OF COMMODITIES, 1890 TO 1905—Continued.

FOOD—Concluded.

Year.	Veal.			Vegetables.				
	Cutlet, per pound, Honolulu, Oahu.	Loin roast, per pound, Honolulu, Oahu.	Rib roast, per pound, Honolulu, Oahu.	Onions, per pound, Hilo, Hawaii.	Onions, per pound, Kauai.	Onions, per pound, Kauai.	Onions, per pound, Kauai.	Potatoes, Irish, per pound, Honolulu, Oahu.
1890	\$0.1250	\$0.1500	\$0.1250	\$0.0500	\$0.0500			
1891	.1250	.1500	.1250	.0500	.0500			
1892	.1250	.1500	.1250	.0600	.0600			
1893	.1250	.1500	.1250	.0500	.0500			
1894	.1250	.1500	.1250	.0500	.0500			
1895	.1500	.1500	.1250	.0500	.0500			
1896	.1500	.1500	.1500	.0500	.0500			
1897	.1500	.1500	.1500	.0300	.0500			
1898	.1500	.1500	.1500	.0500	.0500			
1899	.1800	.1800	.1800	.0500	.0500			
1900	.2000	.2000	.2000	.0500	.0500			
1901	.2050	.2100	.2000	.0500	.0500			
1902	.2100	.2200	.2000	.0500	.0500			
1903	.2200	.2300	.2000	.0500	.0500	a \$0.0467	\$0.0500	b \$0.0245
1904	.2200	.2000	.2000	.0500	.0500	.0483	.0517	c .0294
1905	d .2050	.2000	.2000	.0600	.0600	e .0583	.0500	f .0267

Year.	Vegetables.					Vinegar, cider, per quart, Kauai.	Wheat, cracked, per pound, Honolulu, Oahu.
	Potatoes, Irish, per pound, Honolulu, Oahu.	Potatoes, Irish, per pound, Kauai.	Potatoes, Irish, per pound, Kauai.	Potatoes, Irish, per pound, Kauai.	Potatoes, Irish, Cal., per pound, Hilo, Hawaii.		
1890	\$0.0250	\$0.0250			\$0.0213		
1891	.0250	.0250			.0244		
1892	.0250	.0250			.0183		
1893	.0250	.0250			.0148		
1894	.0250	.0250			.0131		
1895	.0250	.0250			.0133		
1896	.0250	.0250			.0140		
1897	.0250	.0250			.0158		
1898	.0250	.0250			.0131		
1899	.0250	.0250			.0146		
1900	.0250	.0250			.0225		
1901	.0250	.0250			.0258		
1902	.0250	.0250			.0230		
1903	.0250	.0250	\$0.0300	\$0.0275	.0250	\$0.1250	\$0.0650
1904	.0250	.0250	.0300	.0275	.0250	.1250	.0500
1905	.0250	.0250	.0300	.0275	g .0280	.1250	.0650

a Price in Oct. and Nov., \$0.04, and in Dec., \$0.05.

b Price from Mar. to June, \$0.02, July and Aug., \$0.02½; Sept., \$0.02½, and from Oct. to Dec., \$0.03.

c Price from May to Nov., \$0.03, and in Dec., \$0.02½.

d Price in Jan., \$0.22, and from Feb. to Apr., \$0.20.

e Price in Jan., \$0.05, and in Feb. and Mar., \$0.06½.

f Price in Jan., Feb., Apr., and June, \$0.02½, and in Mar. and May, \$0.03.

g Price from Jan. to Apr., \$0.02½, and in May, \$0.03.

TABLE III.—RETAIL PRICES OF COMMODITIES, 1890 TO 1905—Continued.

CLOTHES AND CLOTHING.

Year.	Calico.				Denims.		
	Standard prints, per yard, Hilo, Hawaii.	Standard prints, per yard, Kauai.	Standard prints, per yard, Kauai.	Standard prints, American, per yard, Honolulu, Oahu.	Blue, 9-oz., per yard, Hilo, Hawaii.	Blue, 9-oz., per yard, Kauai.	9-oz., 3-4, per yard, Kauai.
1890.....	\$0.0633	\$0.1000	.....	\$0.1000	\$0.2292	\$0.2500	.....
1891.....	.0833	.1000	.....	.1000	.2500	.2500	.....
1892.....	.0833	.1000	.....	.0833	.2292	.2500	.....
1893.....	.0833	.1000	.....	.0800	.2000	.2500	.....
1894.....	.0833	.1000	.....	.0750	.2000	.2500	.....
1895.....	.0833	.1000	.....	.0700	.2000	.2500	.....
1896.....	.0833	.0825	.....	.0700	.2000	.2500	.....
1897.....	.0833	.0825	.....	.0700	.2000	.2500	.....
1898.....	.0833	.0825	.....	.0633	.2000	.2500	.....
1899.....	.0833	.0825	.....	.0633	.2000	.2500	.....
1900.....	.0833	.0825	.....	.0500	.2000	.2500	.....
1901.....	.0833	.0825	.....	.0500	.2000	.2500	.....
1902.....	.0833	.0763	.....	.0500	.2000	.2500	.....
1903.....	.0833	.0625	\$0.0800	.0500	.2000	.2000	\$0.2080
1904.....	.0833	.0625	.0800	.0500	.2000	.2000	.2000
1905.....	.0833	.0625	.0800	.0500	.2000	.2000	.2000

Year.	Sheetings, cotton.				Shirtings, cotton, colored, 3-4, per yard, Kauai.	Shoes, men's heavy brogans, per pair, Kauai.	Thread, cotton, 400-yard spools, Coats', per spool, Kauai.
	Bleached 4-4, per yard, Honolulu, Oahu.	Bleached 4-4, per yard, Kauai.	Brown, Dwight, No. 2, 4-4, per yard, Hilo, Hawaii.	Brown, 4-4, per yard, Honolulu, Oahu.			
1890.....	\$0.1250	.....	.....	\$0.1100	.....	.....	.....
1891.....	.1250	.....	.....	.1100	.....	.....	.....
1892.....	.1163	.....	.....	.1042	.....	.....	.....
1893.....	.1100	.....	.....	.1000	.....	.....	.....
1894.....	.1100	.....	.....	.1000	.....	.....	.....
1895.....	.1100	.....	.....	.1000	.....	.....	.....
1896.....	.1100	.....	.....	.1000	.....	.....	.....
1897.....	.1117	.....	.....	.1000	.....	.....	.....
1898.....	.1200	.....	.....	.1000	.....	.....	.....
1899.....	.1208	.....	.....	.1000	.....	.....	.....
1900.....	.1233	.....	.....	.1000	.....	.....	.....
1901.....	.1200	.....	.....	.1000	.....	.....	.....
1902.....	.1200	.....	\$0.0833	.1000	.....	.....	.....
1903.....	.1200	\$0.1000	.0833	.1000	\$0.1250	\$2.0000	\$0.1000
1904.....	.1238	.1000	.0833	.1000	.1250	1.9833	.1000
1905.....	.1200	.1000	.0833	.1000	.1250	1.9000	.1000

TABLE III.—RETAIL PRICES OF COMMODITIES, 1890 TO 1905—Continued.

FUEL AND LIGHTING.

Year.	Coal.		Kerosene oil, in 5-gallon cans.				
	Screened second grade, Australian, in ten lots, per ton, Honolulu, Oahu.	Stove-picked, Australian, in ten lots, per ton, Honolulu, Oahu.	In lots of two cans, per gallon, Honolulu, Oahu.	Per gallon, Hilo, Hawaii.	Per gallon, Kauai.	Per gallon, Kauai.	Per gallon, Kauai.
1890.....	\$10.5000	\$12.0000	\$0.2500	\$0.3300	\$0.2875	.....	.....
1891.....	10.5000	12.0000	.2500	.3300	.2900	.....	.....
1892.....	10.5000	12.0000	.2200	.3200	.2400	.....	.....
1893.....	10.5000	12.0000	.2075	.3050	.3000	.....	.....
1894.....	10.5000	12.0000	.2000	.2900	.3175	.....	.....
1895.....	10.5000	12.0000	.2000	.2875	.2800	.....	.....
1896.....	10.5000	12.0000	.2000	.2800	.2800	.....	.....
1897.....	10.5000	12.0000	.2125	.2833	.2600	.....	.....
1898.....	10.5000	12.0000	.2200	.2800	.2575	.....	.....
1899.....	11.0000	13.0000	.2250	.2825	.2600	.....	.....
1900.....	11.0000	13.0000	.2850	.2867	.3000	.....	.....
1901.....	11.0000	13.0000	.2400	.2700	.3000	.....	.....
1902.....	11.0000	13.0000	.2542	.2700	.3000	.....	.....
1903.....	11.0000	13.0000	.2400	.2800	.3175	\$0.3000	\$0.3000
1904.....	11.0000	13.0000	.2250	.2800	.2900	.3000	.2900
1905.....	11.0000	13.0000	.2250	.2740	.2800	.2900	.2900

METALS AND IMPLEMENTS.

Year.	Horse shoes, Planet, jr., per hoe, Honolulu, Oahu.	Nails.		Plows, Hall's, breaker, 14-in., per plow, Honolulu, Oahu.	Saws, hand, Disston, No. 12, 28-in., per saw, Honolulu, Oahu.	Sewing machine, Singer, per machine, Honolulu, Oahu.
		Cut, 20-penny, per 100-lb. keg, Honolulu, Oahu.	Wire or cut, 20-penny, per 100-lb. keg, Honolulu, Oahu.			
1890.....	.....	.....	.....	\$45.0000	.....	\$55.0000
1891.....	.....	.....	.....	45.0000	.....	55.0000
1892.....	.....	.....	.....	45.0000	.....	55.0000
1893.....	.....	.....	.....	45.0000	.....	55.0000
1894.....	.....	.....	.....	45.0000	.....	55.0000
1895.....	.....	.....	.....	45.0000	.....	55.0000
1896.....	.....	.....	.....	45.0000	.....	55.0000
1897.....	.....	.....	.....	45.0000	.....	55.0000
1898.....	\$14.0000	\$3.0000	\$3.0000	45.0000	\$2.5000	55.0000
1899.....	14.0000	3.0000	3.0000	38.2500	2.5000	55.0000
1900.....	14.0000	3.0000	3.0000	38.2500	2.2500	55.0000
1901.....	14.0000	3.2500	3.0000	38.2500	2.2500	65.0000
1902.....	12.6000	3.2500	2.9000	38.2500	2.2500	65.0000
1903.....	12.6000	3.2500	2.9000	38.2500	2.2500	65.0000
1904.....	12.6000	3.2500	2.9000	38.2500	2.2500	65.0000
1905.....	12.6000	3.0000	52.8250	38.2500	2.2500	55.0000

a Price in Jan. and Feb., \$0.28, and from Mar. to May, \$0.27.

b Price from Jan. to Mar., \$2.75, and from Apr. to June, \$2.90.

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TABLE III.—RETAIL PRICES OF COMMODITIES, 1890 TO 1905—Concluded.

MISCELLANEOUS.

Year.	Brick, red, Calif- ornia, per M., Hono- lulu, Oahu.	Lumber.		Starch.		Window glass, 9 by 12 in., per box, Hono- lulu, Oahu.
		Fir boards, rough, per M ft., Hono- lulu, Oahu.	Fir studding, per M ft., Hono- lulu, Oahu.	Laundry, Lily Gloss, per pound, Hono- lulu, Oahu.	Laundry, ordinary, per pound, Hono- lulu, Oahu.	
1890					\$0.0500	
1891					.0800	
1892					.0800	
1893					.0800	
1894					.0800	
1895					.0800	
1896					.0800	
1897					.0800	
1898					.0800	
1899	\$22.0000	\$20.0000	\$20.0000		.0800	\$5.0000
1900	22.0000	20.0000	20.0000		.0800	6.0000
1901	21.0000	28.0000	28.0000		.0800	6.0000
1902	20.0000	27.0000	27.0000		.0800	7.5000
1903	20.0000	26.0000	26.0000		.0800	6.0000
1904	20.0000	30.0000	30.0000	\$0.1000	.0800	6.0000
1905	19.0000	27.5000	27.5000	.1000	.0800	6.0000
	19.0000	27.5000	27.5000	.1000	.0800	6.0000

LAWS RELATING TO LABOR.

ORGANIC ACT.

[Chapter 339.—Acts of U. S. Congress, 1899-1900.]

Contracts of employment—Alien labor.

SECTION 10. * * * *Provided*, That no suit or proceedings shall be maintained for the specific performance of any contract heretofore or hereafter entered into for personal labor or service, nor shall any remedy exist or be in force for breach of any such contract, except in a civil suit or proceeding instituted solely to recover damages for such breach: *Provided further*, That the provisions of this section shall not modify or change the laws of the United States applicable to merchant seamen.

All contracts made since August twelfth, eighteen hundred and ninety-eight, by which persons are held for service for a definite term, are hereby declared null and void and terminated, and no law shall be passed to enforce said contracts in any way; and it shall be the duty of the United States marshal to at once notify such persons so held of the termination of their contracts.

The act approved February twenty-sixth, eighteen hundred and eighty-five, "To prohibit the importation and migration of foreigners and aliens under contract or agreement to perform labor in the United States, its Territories and the District of Columbia," and the acts amendatory thereof and supplemental thereto, are hereby extended to and made applicable to the Territory of Hawaii.

Collection of statistics.

SECTION 76 (as amended by chapter 948, Acts of U. S. Congress, 1903-4). * * * It shall be the duty of the United States Commissioner of Labor to collect, assort, arrange, and present in reports in nineteen hundred and five, and every five years thereafter, statistical details relating to all departments of labor in the Territory of Hawaii, especially in relation to the commercial, industrial, social, educational, and sanitary condition of the laboring classes, and to all such other subjects as Congress may, by law, direct. The said commissioner is especially charged to ascertain the highest, lowest, and average number of employees engaged in the various industries in the Territory, to be classified as to nativity, sex, hours of labor, and conditions of employment, and to report the same to Congress.

Registration of Chinese.

SECTION 101. Chinese in the Hawaiian Islands when this act takes effect may within one year thereafter obtain certificates of residence as required by "An act to prohibit the coming of Chinese persons into the United States," approved May fifth, eighteen hundred and ninety-two, as amended by an act approved November third, eighteen hundred and ninety-three, entitled "An act to amend an act entitled 'An act to prohibit the coming of Chinese persons into the United States,' approved May fifth, eighteen hundred and ninety-two," and until the expiration of said year shall not be deemed to be unlawfully in the United States if found therein without such certificate: *Provided, however*, That no Chinese laborer, whether he shall hold such certificate or not, shall be allowed to enter any State, Territory, or District of the United States from the Hawaiian Islands.

REVISED LAWS—1905.

Payment of wages of employees on highways—Pay days.

SECTION 120. The fifteenth and last days in each month shall be the pay days of all employees engaged in constructing or repairing roads, bridges or streets for the Territory of Hawaii.

Employment of labor on public works.

SECTION 121. No person shall be employed as a mechanic or laborer upon any public work carried on by this Territory, or by any political subdivision thereof, whether the work is done by contract or otherwise, unless such person is a citizen of the United States, or eligible to become a citizen: *Provided, however,* That in the event that unskilled citizen labor, or unskilled labor eligible to become citizen labor, can not be obtained to do the required work, the superintendent of public works, or the county board of control, or the mayor, or other chief executive of any municipality, respectively, shall have the power to issue permits to employ other than citizen, or eligible to become citizen, unskilled labor until such citizen, or eligible to become citizen, unskilled labor can be obtained.

SEC. 122. Eight hours of actual service shall constitute a day's labor for all mechanics, clerks, laborers and other employees employed upon any public work or in any public office of this Territory, or any political subdivision thereof, whether the work is done by contract or otherwise: *Provided, however,* That the full eight hours shall not apply to Saturdays or any holiday.

SEC. 123. A stipulation that no mechanics, clerks, laborers or other employees employed upon any public work in the employ of the contractor or subcontractor shall be required to work more than eight hours in any one calendar day, except in cases of extraordinary emergency, and that no mechanic or laborer, other than a citizen of the United States, or person eligible to become a citizen, shall be employed, shall be contained in every contract to which the Territory or any political subdivision thereof is a party.

SEC. 124. Any contractor, person, firm or corporation, or any officer of the Territory, or of any political subdivision thereof, violating any of sections 121-124, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be subject to a fine of not less than ten dollars nor more than one hundred dollars for each offense. Any and each and every such violation shall be deemed a separate offense for each day thereof, and for each mechanic, clerk, laborer or other employee employed upon any public work, employed in violation of the provisions of this act. Any contract or subcontract for any public work in this Territory that does not comply with the provisions of section 123 shall be absolutely void.

Tenement and lodging houses—Inspection, etc.

SECTION 1020. Every house or tenement used or occupied as a dwelling for lodgers or contract laborers shall be kept by its owner in good repair, and with roof watertight, and shall have the capacity of not less than three hundred cubic feet of space for each adult, or nine hundred cubic feet for one man and woman and two children.

SEC. 1021. The yard and grounds about all dwellings shall be well drained and kept free from rubbish of every description, with a closet, or privy, also to be kept in repair by the lodging-house keeper or employer of laborers, for every six adults.

SEC. 1022. Every owner or keeper and every other person having the care or management of a lodging house or of a dwelling for contract laborers, shall at all times when required by the board of health or its agents give free access to such house or any part thereof.

SEC. 1023. Every lodging-house keeper or employer of laborers who shall fail to comply with the provisions of this chapter shall pay a fine not exceeding fifty dollars.

Regulation of laundries.

SECTION 1063. The superintendent of public works may cause to be built and erected in the district of Kona, Island of Oahu, a sufficient number of laundries and wash houses, and to let the same to persons applying therefor at such rents, and upon such terms as the said superintendent shall deem advisable. And in like manner to designate and use for such purposes buildings already erected.

SEC. 1065. Such laundries and wash houses when erected shall be under the supervision and control of the board of health.

SEC. 1066. Every person who shall carry on the business of laundry keeping or washing for hire, within the limits of the city of Honolulu, except in such buildings as shall be provided for such purpose, in accordance with the provisions of section 1063, shall be liable to a fine not to exceed fifty dollars for each and every day or part of a day during which he shall so carry on such business, and in default of payment of such fine shall be imprisoned at hard labor until such fine is paid.

Employers to furnish names of employees to assessors.

SECTION 1226. * * * Taxpayers shall render to such assessor [of each division] or his deputies a statement, list or return of all property, real or personal, belonging to them or of which they had possession or control on January 1 of that year, * * * and of all persons in their employ on that day.

SEC. 1227. Each person liable to pay taxes and every owner or possessor of any property, real or personal, whether entitled to exemption or not, shall in the month of January of each year give in to the assessor or the deputy assessor of the district in which said property is located a written or printed taxation return, signed and sworn to by him, enumerating the following facts, viz:

* * * * *

4. The names and nationalities of all persons subject to taxation in the employ of such persons on January 1.

Contracts of employment—Stamp duties.

SECTION 1298. There shall be due and payable to the Territory in respect of the several deeds, documents, and instruments mentioned and specified in section 1320, the several sums of money for stamp duty set forth in the said schedule.

SEC. 1320. *Schedule.*—

* * * * *

Contracts between masters and servants for labor, \$1.

If for more than one year, then for each year or part of a year after the first, \$1. (This duty to be charged on the original and duplicate copies, fifty cents on each copy for each year, or fractional part thereof, of the term of the contract, and to be paid by the employer.) * * *

Regulation of laundries—License.

SECTION 1375. The treasurer with the approval of the governor may issue to any person, partnership or corporation a license to erect, maintain and operate a steam laundry within the District of Kona, Island of Oahu, upon such conditions as to location and otherwise as shall be set forth in the license.

SEC. 1376. Said license shall not be issued except upon the certificate of the board of health, setting forth that an agent of said board has examined the location at which it is proposed to operate said steam laundry, and that the same is suitable for the purpose.

SEC. 1377. The annual fee for said license shall be fifty dollars.

SEC. 1378. Said steam laundries shall be subject to such regulations as to sanitation as may be prescribed from time to time by the board of health.

Exemption of wages from execution, etc.

SECTION 1831. The following-described personal property shall be exempt from attachment, execution, distress and forced sale of every nature and description:

* * * * *

7. One half of the wages due every laborer or person working for wages.

Garnishment of wages of public employees.

SECTION 2128. Any officer or employee, or other person in the service of the government of the Territory of Hawaii or of any political of [or] municipal subdivision thereof, or in receipt of, or entitled to a salary, stipend, wages, annuity or pension from the government of said Territory, or any department, board or bureau thereof, or from any political or municipal subdivision of said Territory, shall for the purposes of this chapter, and of any proceedings hereunder, be known and described as a government beneficiary, hereinafter denominated such beneficiary.

SEC. 2129. The salary, stipend, wages, annuity or pension of such beneficiary may be attached for, and applied in the payment of his debts, * * *

SEC. 2137. * * * From the time of the service of such copy [of process] on such garnishee, it shall be unlawful for him to draw, sign or issue any warrant payable to the order of such beneficiary as shall be named in such copy, or to any other person designated by such beneficiary, or permit or cause the same to be drawn, signed or issued for more than seventy-five per cent of the salary, stipend, wages, annuity or pension, which shall then be or shall thereafter become due, owing or payable to such beneficiary, until the suit against him shall have been withdrawn or dismissed, or the judgment obtained against him therein, if any, shall have been fully paid, with legal interest thereon; * * * *Provided*, That no more shall be thus sequestered and not drawn against in advance of final judgment than shall be sufficient to meet the demand of the plaintiff or plaintiffs in such suit or suits.

Earnings of married women.

SECTION 2253. All work and labor performed, or services rendered by a married woman for or to a person other than her husband and children, shall, unless there is an express agreement on her part to the contrary, be presumed to be performed or rendered on her separate account.

Payment of wages—Deductions, offsets, etc.

SECTION 2698. It shall be unlawful for any person, firm, partnership or corporation, within this Territory, to deduct and retain any part or portion of any wages due and payable to any laborer or employee, or to collect any store account, offset or counter claim without the written consent of such laborer or employee or by action in court as provided by law.

SEC. 2699. No fines, offsets or counter claims shall be collected, deducted, or retained out of any wages due and payable to any laborer or employee by any person, firm, partnership or corporation, in this Territory, unless by action in court and judgment therefor first obtained as provided by law.

SEC. 2700. Any person, partnership, firm or corporation who shall violate any provision of this chapter shall be guilty of a misdemeanor and upon conviction thereof shall be fined not less than fifty dollars and not more than one hundred dollars.

Conspiracy.

SECTION 3091. A conspiracy is a malicious or fraudulent combination or mutual undertaking or concerting together of two or more, to commit any offense or instigate any one thereto, or to charge any one therewith; or to do what plainly and directly tends to excite or occasion offense, or what is obviously and directly wrongfully injurious to another:

For instance—

* * * * *

To prevent another, by indirect and sinister means, from exercising his trade, and to impoverish him:

* * * * *

SEC. 3092. Any person knowingly acceding to and joining in a conspiracy after the same is formed, is a party thereto, no less than the one who originally takes part in forming the same.

SEC. 3093. It is not requisite that the act agreed upon should be done or attempted in pursuance of the conspiracy; the conspiracy itself constitutes the offense.

SEC. 3094. The act of each party to a conspiracy, in pursuance thereof, is the act of all.

SEC. 3101. Conspiracy not appearing to be in the first or second degree, is in the third degree, and shall be punished by imprisonment at hard labor not exceeding one year and by fine not exceeding four hundred dollars, in the discretion of the court.

Sunday labor.

SECTION 3190 (as amended by act No. 15, Acts of 1905). All labor on Sunday is forbidden, excepting works of necessity or mercy, in which are included all labor that is needful for the good order, health, comfort or safety of the community, or for the protection of property from unforeseen disaster, or danger of destruction or

injury, or which may be required for the prosecution of or attendance upon religious worship, or for the furnishing of opportunities of reading or study: *Provided, however,* That this section shall not apply to newspaper printing offices, steamship companies, railroads, telegraph and telephone companies, hotels, inns, restaurants, cigar stores, ice-cream parlors, soda-water stands, drug stores, livery stables, hackmen, owners and operators of licensed shore boats, news depots, graziers and ranchmen, electric-light plants, gas works and slaughter houses: *And provided further,* That personal baggage may be conveyed to and from vessels leaving and arriving at port on that day, and to and from any railroad stations; that on Sunday the loading and unloading of vessels engaged in interisland, interstate or foreign commerce shall be permitted, but no freight except live stock and goods of a perishable nature, shall be drayed or conveyed from the dock, pier, wharf, or landing upon which it is unloaded; that during the entire day milk, bread, fruit and ice may be sold and delivered; that until 10 o'clock in the forenoon fresh meat, fresh fish, and fresh vegetables may be sold and delivered, and laundrymen and laundries may deliver and collect laundry or washing, and that barber shops may be kept open until 11 o'clock in the forenoon.

ACTS OF THE LEGISLATURE OF THE REPUBLIC OF HAWAII, PUBLISHED
IN REVISED LAWS—1905.

Act 14, Laws of 1895.—*Labor Commission.*

SECTION 1. The President of the Republic is hereby authorized and directed to appoint a commission of three persons, who shall be known as the "Labor commission," and all of whom shall serve without pay. One of the commissioners shall be designated by the President to be chairman of the commission, and shall have power to administer oaths. Members of the commission may be removed at any time by the President.

SEC. 3. It shall be the duty of the said commission to make a full and careful inquiry and investigation into the following matters, so far as the same shall not have been done by the labor commission provided for in Act IV of the executive and advisory councils of the Republic, and to report from time to time to the legislature, if the same shall be in session, or to the executive council if the legislature shall have adjourned:

1. The number and nationality and residence of all agricultural laborers now employed in the Republic, showing the number engaged in each particular branch of agriculture.

2. The rate of wages paid to the different nationalities of such laborers in the different portions of the Republic.

3. The number, nationality and residence of all mechanics now employed in the Republic.

4. The rate of wages paid to the different nationalities of such mechanics in the different portions of the Republic.

5. The prices received by Hawaiian sugar planters for raw sugar.

6. The cost of producing sugar, showing, so far as practicable, the cost of each stage and process, and showing more particularly the proportionate cost of unskilled labor.

7. Whether or not an increased number of agricultural and other unskilled laborers will be needed in the near future, and if so, in connection with what industries and how many laborers will probably be required.

8. The trials which have been given to cooperative production, or profit sharing, in the production of sugar, rice, or other agricultural products in this country, giving, so far as practicable, the details of the several agreements and methods adopted, and the results thereof.

9. Whether or not a system of cooperative production or profit sharing is feasible in connection with the main agricultural industries of the country; and if so, upon what lines.

10. Whether or not such a system of production has ever been adopted in any other country situated similarly to Hawaii, and in the production of similar products to those produced here; and if so, what the results were.

11. Whether or not there is anything in the climatic or other conditions in this country which render it physically impossible for Europeans and Americans to successfully engage in field labor in this country.

12. If Europeans and Americans are found capable of personal field labor, whether or not it is feasible to secure the immigration of a sufficient number of Europeans or Americans to supply the present and probable requirements for unskilled labor. If so, upon what terms and by what means, and from what countries.

13. What the effect of Chinese immigration has been in this country.
14. What the effect of restriction of such immigration has been.
15. Whether or not it is necessary or advisable to allow the further immigration of Chinese. If so, upon what conditions.
16. What the effect of Japanese immigration has been in this country.
17. Whether or not it is necessary or advisable to allow the further immigration of Japanese. If so, upon what conditions.
18. What the condition of field labor and of mechanics is and during the last few years has been in this country, as compared with other countries.
19. What rate of wages is paid in other countries to skilled and mechanical labor in the production of products similar to those raised here.
20. In what manner and to what extent men introduced as contract laborers have competed with the mechanical or business interests of the country.
21. Any other matters of a kindred character which will throw light upon the subject and tend to solve the problems incidental to the labor question in this country.

SEC. 4. It shall be the duty of all government officers, officers of corporations, and other persons, to furnish to such commission, upon its request, all information within their knowledge bearing upon the subject-matter of this act; and power is hereby conferred upon such commission, or a majority of its members, to issue subpoenas to witnesses to appear and testify before such commission, and to produce papers before it, in the same manner as subpoenas are issued by the supreme court. Disobedience or refusal to answer questions asked pursuant to any subpoena issued by such commission may be punished by any justice of the supreme court, on a certification to him by the commission or a majority of its members, of the fact of such disobedience; the punishment to be the same as that for disobedience of a subpoena of the supreme court.

SEC. 5. The said commission is hereby authorized to employ a secretary or such other clerical assistance as may be necessary in collecting and arranging the above information; also a stenographer and typewriter when required, and to fix the compensation of the same, subject to the approval of the minister of the interior; also to incur the necessary incidental expenses connected with the performance of the work of the commission, including traveling expenses of the members of the commission, and of witnesses summoned by them: *Provided, however, That no expense shall be incurred for traveling beyond the limits of this Republic.*

SEC. 6. For the purposes of defraying the expenses of such commission there is hereby authorized to be drawn from the public treasury any balance that may remain unexpended from the amount appropriated for the expenses of the labor commission in Act IV of the executive and advisory councils of the Republic, after paying the expenses incurred by the said commission up to the time of the appointment of the commission provided for in this act. The money herein appropriated shall be drawn from the treasury in such manner and under such regulations as shall be prescribed by the executive council.

SEC. 7. As soon as practicable after the appointment of the commission provided for in this act, the commission provided for in Act IV of the executive and advisory councils of the Republic shall transfer thereto all books, papers, records and public property of every kind that may be in its possession or under its control, and shall thereupon cease to exist.

ACTS OF THE LEGISLATURE OF HAWAII—1905.

Act No. 46.—*Examination and licensing of horseshoers.*

SECTION 1. No person shall engage in the business of a horseshoer or farrier for hire without first having a license so to do as provided herein.

SEC. 2. Any person who may wish to obtain a horseshoer's and farrier's license shall make a written application therefor to the treasurer wherein shall be stated the residence of the applicant, his age, the length of time and the place where the applicant has carried on his trade and the place where he intends to carry on his trade.

Before such application is granted the high sheriff or any sheriff of the Territory shall examine the applicant to determine whether he is a suitable person to carry on the trade of a horseshoer and farrier for hire, and on it being shown to the said high sheriff or sheriff that such applicant is a suitable person to engage in such trade, the fact shall be attested on said application by the examining high sheriff or sheriff.

SEC. 3. The license fee of farriers shall be five dollars per annum and payable to the treasurer.

SEC. 4. Whoever shall violate the provisions of this act shall be guilty of a misdemeanor and, on conviction, be fined not more than fifty dollars.

Act No. 57.—*Emigrant agents.*

SECTION 1. The annual fee for a license for each emigrant agent, or employer or employee of such agent, doing business in this Territory, shall be five hundred dollars.

SEC. 2. The said license shall be issued in the same manner as is provided for the issuance of other licenses by chapter 102 of the Revised Laws of Hawaii, 1905.

SEC. 3. Any person who shall engage in business as an emigrant agent without first obtaining a license, issued in conformity with the provisions hereof, and of said chapter 102, or who shall violate or fail to observe any of the provisions hereof, or of said chapter, shall be guilty of a misdemeanor, and upon conviction shall be fined in a sum not less than the annual fee, and not more than twice the annual fee herein provided for the carrying on of such business.

SEC. 4. The [term] emigrant agent, as used in this act, shall be held to mean a person engaged in hiring laborers in the Territory of Hawaii, to be employed beyond the limits of the Territory, or engaged in inducing laborers in the Territory of Hawaii to go beyond the limits of the Territory of Hawaii for the purpose of being employed.

Act No. 67.—*Employment of minors in saloons—Sale of liquor to employees.*

SECTION 12. Licenses shall be subject to the following conditions and provisions:

(4) No licensee of the first, second, fourth or fifth class, except such as conduct an hotel business on the same premises, shall employ a minor in or about the room or rooms where intoxicating liquors are manufactured or furnished; * * *

(5) No intoxicating liquor shall be sold or furnished to any person whose * * * employer has given notice as hereinafter provided, forbidding the sale to such person; * * *

SEC. 49. A husband, wife, child, parent, guardian, employer or other person who is injured in person, property or means of support by an intoxicated person or in consequence of the intoxication of any person, shall have the right of action in his or her own name, jointly or severally, against any person or persons who by selling or furnishing intoxicating liquor have caused, in whole or in part, such intoxication. * * * The party injured, or his or her legal representatives, may bring either a joint action against the person intoxicated and the person or persons who furnished the liquor and the owner of the building as herein above stated, or a separate action against either or any of them.

SEC. 51. Any husband, wife, daughter, son, brother, sister, parent, guardian or employer of any person who is an habitual drunkard, or who by excessive use of intoxicating liquor injures his or her health, or endangers or interrupts the peace or happiness of his or her family, or becomes a public nuisance, may give written notice to any licensee not to sell or furnish any intoxicating liquor to such habitual drunkard, and thereafter any licensee who sells, gives or in any manner furnishes any intoxicating liquor to such habitual drunkard, shall upon conviction thereof be held liable to the penalties herein above described [fine not exceeding \$1,000].

ACTS OF U. S. CONGRESS, 1897-98.

JOINT RESOLUTION No. 55.—*Exclusion of Chinese laborers.*

SECTION 1. * * * There shall be no further immigration of Chinese into the Hawaiian Islands, except upon such conditions as are now or may hereafter be allowed by the laws of the United States; and no Chinese, by reason of anything herein contained, shall be allowed to enter the United States from the Hawaiian Islands. * * *

ACTS OF U. S. CONGRESS, 1901-2.

CHAPTER 641.—*Exclusion of Chinese laborers.*

SECTION 1. All laws now in force prohibiting and regulating the coming of Chinese persons, and persons of Chinese descent, into the United States, and the residence of such persons therein, * * * are hereby reenacted, extended, and continued so

far as the same are not inconsistent with treaty obligations, until otherwise provided by law, and said laws shall also apply to the island territory under the jurisdiction of the United States, and prohibit the immigration of Chinese laborers, not citizens of the United States, from such island territory to the mainland territory of the United States, whether in such island territory at the time of cession or not, and from one portion of the island territory of the United States to another portion of said island territory: *Provided, however,* That said laws shall not apply to the transit of Chinese laborers from one island to another island of the same group; and any islands within the jurisdiction of any State or the district of Alaska shall be considered a part of the mainland under this section.



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CONTENTS TO THE PRINCIPAL TRADES.

BY DR. W. E. WEYL, PH. D., AND A. M. SAKOLSKI, PH. D.^(a)

INTRODUCTION.

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III

conditions of entrance to the principal related lines of inquiry. One connects mechanical arts and the changes in constantly affecting the skill and mechanics; the other relates to the equipping workers for their respective adjustment of these methods to two are thus directly interwoven change in industrial processes which character of the labor in a certain affect the conditions of entrance perceptible the change may be. The must therefore be an inquiry into the conditions of entrance to the casual students of economics it is industry and the nature of employment change. With each year come new with each year occupations become of labor more perfect and more the hand process and more complicated kind. The process of man into an ever greater series of more trades have disappeared or are defined occupation, the metes and a series of new trades has arisen,

data in this article, as well as the final t, was done entirely by Dr. A. M. Sakolski

and what is more significant to the present study, there have come to be hundreds and thousands of new occupations, many of which consist in single simple operations.

The effect of this disintegration of trades upon the industrial efficiency of the community has frequently been studied. Its effect upon such problems as the localization and centralization of industry, upon the distribution of wealth, upon general unemployment, upon the monotony and upon the productivity of labor has also been studied. The present investigation, however, concerns the effect upon the skill and character of the workers and the consequent changes in the conditions of entrance to the various trades.

The importance of this problem can hardly be overestimated. Upon the skill or the lack of skill of the great mass of the workers of industrial countries depends in a large measure the nature and character of their populations. The habits acquired and the discipline received by workmen in the acquisition of technical skill are most potent influences upon their lives. But more important still is the selective influence that the technical character of a trade exerts upon the workers. If the labor processes require an increasing amount of skill and training for their performance, the more proficient workers of the community seek employment therein. If, on the other hand, the amount of skill needed in the processes of a trade is lessened, a corresponding tho opposite effect will be had upon the character and qualifications of the workers. The conditions of entrance to the trade having become less difficult, the less efficient workers are enabled to work alongside or to replace those who possess a higher degree of skill or efficiency.

It is not the object of this article to furnish any definite answer to the question whether the amount of skill required in industry has been increased or decreased as a result of the new industrial processes. Answers have been given to this question on the one side and on the other, but there has not yet been made any study sufficiently broad to permit an entirely unassailable reply to the question. The question is difficult by reason of the multiplicity of industrial operations, and it is complicated by the unequal growth of industries, by the constant introduction of new trades and the decay of others, and by the numerous gradations of skill and efficiency wrought by the extensive use of machinery and division of labor. It is also complicated by a change in the nature of skill itself—a change from manual dexterity to a more intellectual activity—and by a growing emphasis upon nervous rather than physical energy. Thru the use of mechanical devices and subdivision of labor in manufacturing processes, skill has become not only qualitative but quantitative; in other words, there is a skill which requires a man not only to do work better but also to do more of it. New forms of skill and

not only manual dexterity, but speed, accuracy, and close mental application.

In view of these changes in the nature of skill itself, it is extremely difficult to apply any test which will determine whether the skill in an occupation is increasing or decreasing. For the purposes of this discussion, however, two tests may be roughly applied, viz: (1) The character and social condition of the workers in the trade or occupation, and (2) the length of preparatory training, or the experience required previous to entering the trade as an ordinary journeyman.

A study of the former test concerns itself with the displacement of native skilled workmen by unskilled foreign laborers at lower wages, or the displacement of one class of foreigners by another class of foreigners at lower wages, or the displacement of men by women and children. In almost every case of such displacement there is a presumption of a lessening of skill, tho the presumption may be rebutted in exceptional instances.

The second test of the standard of skill in a given occupation, viz, the training or experience essential to competition on the part of the worker, is by far the more important. Where the amount of technical training ordinarily required to become competent is lessened or the length of the apprenticeship term is shortened there are generally indications of decreasing skill. To this extent the decay of the old apprenticeship system of acquiring craft knowledge may be taken as evidence of loss of skill, altho the training formerly obtained under apprenticeship may under present conditions be obtained in other ways.

The importance of maintaining a high standard of skill in their occupations is felt by all workmen. It was this motive which led artizans, thru their associations and otherwise, to enforce stringent rules regarding apprenticeship and to exclude all from the trade who had not served the full apprenticeship term. It was this motive, likewise, which prompted so many workmen to resist the immediate introduction of machinery, as well as new processes, tending to reduce skill, since these generally interfered with the rigid enforcement of apprenticeship and otherwise affected the conditions of entrance to the trade.

The policy of directly opposing the introduction of machinery is now recognized as impracticable, and with the present disintegration of trades it is usually impossible, except in a few occupations, strictly to enforce apprenticeship regulations or otherwise effectively control the conditions of entrance to a trade. The present endeavor of workmen to maintain the standard of skill in their craft is directed mainly to the regulation of the use of machinery and new processes introduced, as well as to the organization under their control of the machine operators and the lower grade workers.

There is also an endeavor on the part of many workers to maintain the standard of skill in their craft by prohibiting the grading of journeymen or by opposing teamwork and the employment of helpers and junior mechanics who may do the work of journeymen. The conditions of entrance to a trade thus become an important matter to workmen desiring to prevent not only a too rapid increase in their numbers, but, more important still, the injection into the trade of men of less skill. The control of the entrance to the trade is, however, becoming increasingly difficult. The extensive use of machinery in almost all trades and handicrafts, the minute subdivision of labor processes, and the consequent specialization of occupations, have been gradually displacing the old forms of skill and workmanship and causing the institution of new methods of acquiring craft knowledge. The old system of apprenticeship, which at the beginning of the nineteenth century was the almost universal method of entering a trade or handicraft, is fast becoming obsolete. Tho in former days apprenticeship possessed many advantages, under modern conditions it is becoming more and more unsuitable, especially in trades in which there has already been marked a decline in the skill of the workers. In many important trades where the labor processes have been minutely subdivided and simplified, such as boot and shoe making, garment making, etc., apprenticeship regulations have been abandoned, and even in trades in which apprenticeship still forms the principal avenue of entrance to the trade it not only differs in many other respects from the old form of apprenticeship, but its term is lessened and the requirements are not so strict nor so rigidly enforced. In the building trades, for example, which have been less affected by machinery and the subdivision of labor than most other trades, many workmen become journeymen without serving a full apprenticeship. It is becoming recognized that the organization of modern industry is not adapted to the proper training of apprentices.

In industries in which production on a large scale is carried on as a result of the use of machinery and the subdivision of labor, neither the employer nor the workman can afford the time or the effort to apply himself systematically to the training of apprentices, and even if he could his work would be of small value to the boy, and is usually not desired by him. Boys can now readily become proficient in an occupation at which they can earn journeymen's wages by applying themselves to a particular branch of a trade rather than by endeavoring to acquire the whole trade thru an apprenticeship.

As a consequence of the unsuitability of the apprenticeship system to modern industrial conditions, other methods of acquiring skill in the craft have been substituted. Chief among these are, first, the *helper system*, by which a knowledge of the craft is acquired

in the shop, and, second, systematic trade and technical education. The first system is peculiar to certain trades in which experience rather than training is essential to competency, and in which the labor is too arduous for youths. Since there is no definite form of probation under the helper system, the workmen have no control over the number of learners in the trade. As a consequence, there is much friction between helpers and journeymen, and trouble arises from the endeavor of the journeymen to prevent the helpers from entering the trade.

Trade and technical education is applicable only to those trades requiring some scientific as well as manual skill. It is claimed by workingmen that the trade schools turn out mechanics too rapidly, without giving them a thoro knowledge of the craft, and that as a consequence there is a tendency to lower the standard of skill and the rate of wages. The same objection is not urged against trade and technical education where the men educated are already workers in the craft.

DISINTEGRATION OF TRADES.

The original conception of a trade or craft was that of a manual occupation requiring time and training for its acquisition. Every artizan or mechanic practising a craft was considered a sharer in a monopoly or a holder of a "vested right," which he enjoyed as a reward for the time and energy spent in acquiring proficiency. In other words, the trade of a mechanic was a "mystery," into the secrets of which he had been initiated thru the process of apprenticeship. If a worker gained entrance to his trade by other means than thru apprenticeship, he was considered an "illegal man" and his employment was prohibited. This difficulty of apprenticeship in a craft largely influenced the wages, hours, and standard of living of those who had earned in it the title of journeymen.

Before the eighteenth century the agricultural worker was practically the only workman who was not a craftsman or mechanic, not so much because his work may have required little training and skill but rather because he was not compelled to undergo a definite term of apprenticeship as evidence of proficiency.

The old conception of a trade or craft gradually changed with the development of modern industry following the rapid introduction of machinery and the subdivision of labor processes. It is now no longer necessary for every mechanic or artizan to acquire a knowledge of all branches of the craft in which he is engaged. Hence the long period of training, which was essential to every artizan practising any manual trade, in a great number of occupations and industries is fast becoming obsolete. In fact, the acquisition of manual dexterity is often rendered useless, owing to

the introduction of a machine or the employment of some mechanical device, which does the work more effectively than it can be done by the hand process. Formerly, as a matter of necessity, the handicraftsman acquired proficiency in all branches and subdivisions of his peculiar trade. In most occupations at the present time he need learn only one branch or subdivision of a trade to enter upon an active industrial career and gain a livelihood at his calling. As a result of this condition occupations are constantly multiplied, while the demarcation of different manual trades and the class distinctions among different grades of artisans tend to disappear. The gradual disintegration of old crafts is constantly displacing the old forms of skill and manual efficiency by new manual and mechanical processes.

With the introduction of machinery, and with the constantly increasing subdivision of labor, trades either become eliminated altogether, or the various branches of one trade become differentiated or specialized. A continual struggle between hand labor and machine labor results. Hand labor either disappears altogether or is eventually remanded to higher artistic work, and thus the more skilful workers are called to the higher classes of work, while the unskilled workers are retained as machine operators.

Modern industrial development is thus creating new and more numerous gradations of workers in different trades and occupations. When, in former times, it was essential for the mechanic to learn his craft as a whole, he was capable of either producing a single commodity or performing a complete mechanical process, to which the tools and methods peculiar to his trade were adapted. Under modern conditions the mechanic may belong to one of several groups of workmen in the same industry, each group differing from the others in earnings and kind of work, the finished product of the combined groups being what was in former times the work of one man.

The "specialization" or subdivision of occupations is not only far advanced in the manufacturing industries, but has also affected many hand trades little influenced by machinery, in which formerly all the processes were performed by a single mechanic or by several mechanics of an equal grade of skill and efficiency. How far the disintegration of trades has progressed is illustrated by the recent developments in several of the important trades and industries.

Probably no other craft has undergone such rapid disintegration within recent years as that of the machinist. Regarding these changes in Great Britain Sidney and Beatrice Webb write as follows:

A century ago the small skilled class of millwrights executed every kind of engineering operation, from making the wooden patterns to erecting in the mill the machines which had been constructed by their own hands. The enormous expansion of the engineering industry has long since brought about a division of labor, and the mechanics in a great engineering establishment to-day are divided into numer-

distinct classes of workers, who are rarely able to do each other's work. The pattern makers, working in wood, have become sharply marked off from the boiler makers and the iron founders. The smiths, again, are distinguished from the fitters, turners, and erectors. Another form of specialization has arisen with the increased use of other metals than iron and steel, and we have brass founders, brass finishers, and coppersmiths. Each generation sees a great development in the use of machines to make machines, so that a modern engineering shop, in addition to the time-honored lathe, includes a bewildering variety of drilling, shaping, boring, planing, slotting, milling, and other machines, attended by wholly new classes of machine minders and tool makers, displaying every grade of skill. Finally we have such new kinds of work, with new classes of specialists, as are involved in the innumerable applications of iron and steel in modern civilization, such as iron ships and bridges, ordnance and armor plating, hydraulic apparatus and electric lighting, sewing machines and bicycles. To discover the exact limits of a "trade" in these closely related but varied occupations, is a task of supreme difficulty. All are working in the same industry, and in the large establishments of to-day, all may be engaged by a single employer. The same recurring waves of expansion and contraction sooner or later affect all alike. On the other hand, there exist between the separate occupations great varieties of methods of remuneration, standard earnings, and strategic position. The strictly apprenticed boiler makers (shipyard platers) working in compact groups, at cooperative piecework, earning sometimes as much as a pound [\$4.87] a day, find it advantageous in good times to roll up, by large subscriptions, a huge reserve fund, to maintain a staff of special trade officers to arrange their piecework prices at every port, and to provide handsomely for their recurring periods of trade depression. At the other end of the scale we have the intelligent laborer become an automatic machine minder, securing relative continuity of low-paid employment by working any simple machine in any kind of engineering establishment, and interested mainly in the opening of every operation to the quick-witted outsider. The pattern maker again, working in wood, at a high time rate, has little in common with the pieceworking smith at the forge.^(a)

In the United States a similar differentiation has taken place in the machine trades, making it exceedingly difficult to specify the work done by machinists. In fact, the International Association of Machinists during the last decade has experienced considerable difficulty in defining the craft of its members. At the meeting of the arbitration board of the International Association of Machinists and the National Metal Trades' Association in New York, May 10, 1900, the following definition of a machinist was adopted by resolution:

A machinist is classified as a competent general workman, competent floor hand, competent lathe hand, competent vise hand, competent planer hand, competent shaper hand, competent milling-machine hand, competent slotting-machine hand, competent die sinker, competent boring-mill hand, competent tool maker and competent linotype hand. To be considered a competent hand in either

^a *Industrial Democracy*, new edition, 1902, p. 187.

class, he [the machinist] shall be able to take any piece of work pertaining to his class, with the drawings or blueprints, and prosecute the work to successful completion within a reasonable time. He shall also have served a regular apprenticeship or have worked at the trade four years.^(a)

The Milwaukee convention of the International Association of Machinists held in May, 1903, extended further the scope of the definition given above by admitting specialized workmen in the machine shop—who in reality are not considered all-round machinists—to a classified membership in the association. They still excluded, however, workmen in the machine shop who, by reason of their slight training and skill, are properly called “handy men.”

The extent of the jurisdiction of the International Association of Machinists, as a result of the admission of specialists to membership, covered the following classes of machine-shop workers, according to the report of the president of the association, July 1, 1904:

(1) General hands, (2) erecting hands, (3) floor hands, (4) vise hands, (5) assemblers, (6) adjusters and repairers of metal working parts of all classes of machinery, (7) men operating all classes of lathes, (8) men operating all classes of planers, (9) milling machine men, (10) men operating all classes of shapers, (11) men operating all classes of slotters, (12) men operating all classes of boring mills, (13) men operating all classes of gear cutters, (14) tool grinders, (15) men operating Jones & Lamson, Gisholt, and American turret lathes, (16) drill press hands, (17) screw machine hands, (18) men operating all machines of a similar character as heretofore mentioned, (19) tool makers, (20) die sinkers, (21) jig workers, (22) mold makers in glass factories or elsewhere, (23) all men engaged in the manufacture of metal model novelties, where skilled hand labor or machines are used, (24) all surgical instrument makers, (25) all metal pattern makers employed in machine shop.^(b)

The recent general convention of the International Association of Machinists (1905) took a further step in extending its jurisdiction, enacting a law admitting any person to the union who attends a machine that is not absolutely automatic in its operation, whether he had served an apprenticeship or not, the only qualification being that he is competent to earn the standard rate of wages for the class of work performed by him. The International Association of Machinists accordingly comprizes at the present time all workers in the machine shop, except the common laborers and the attendants of perfectly automatic machines, such as nut-tapping machines, bolt cutters, power saws, and small simple drill presses used to drill rough holes upon common rough work.

Owing to this minute subdivision and subclassification of machinists' work, it is not a difficult matter for employers to introduce the

^a Machinists' Monthly Journal, Vol. XII, p. 313.

^b Ibid., Vol. XVI, p. 790.

"handy man" in a position formerly occupied by skilled machinists, thus causing numerous disputes and conflicts. Commenting upon this situation the president of the International Association of Machinists, in the report of April 1, 1903, said:

You will notice from the report on strikes that we have had several strikes against the introduction of the "handy-man system." The employers are not to blame for this in all cases, for now and then we find instances where the machinists refuse to do a certain class of work. As a result the employer is forced to employ whomever he can get to do the rest of the work.

The difficulty we are constantly confronted with is to decide in what consists machinists' work. For instance, in some locomotive shops machinists do steam-pipe work and the building of engine works, while in others this work is performed exclusively by the "handy man." There should be drawn a definite line, so that members of our organization should know their constitutional rights, and feel that they will be considered in the fulfilment of the same.

In my opinion we can not completely solve this problem until we have taken entire control of the machine shop, when we will be in a position to make an agreement covering the employment of all who work therein.^(a)

The difficulty of defining machinists' work is plainly the result of the evolution of machine-shop equipment during the last decade, an evolution which resulted in the widespread introduction of automatic and semiautomatic machines and all kinds of special tools, rendering it possible for unskilled mechanics to do the work formerly done by skilled machinists. Regarding these changes a writer in *Cassier's Magazine* makes this comment:

The twentieth century conception of a machine shop is not an aggregation of intelligent workmen, provided with the most efficient tools and apparatus that ingenuity can devise, and using them with all the cunning that trained minds can suggest. The shop, from the present standpoint, is simply a huge machine tool, as void of conscious volition as an automatic screw machine, of which the intelligent operator is the manager, and in which lathes and workmen, drills and inspectors, nutting machines and laborers are on one common plane of nonsentient, coacting subordination.^(b)

Similarly, in carpentry and woodworking, the labor-saving machinery has accomplished remarkable changes during the past three decades. Only the older generation of house carpenters, and a few younger men who have learned their trade under more conservative

^a The absence of a definitely accepted classification of machinists' work up to the year 1900 was a constant cause of difficulty with employers. All machine shops employ a number of so-called "handy men," who in some union shops are permitted to do certain kinds of work, which in others are regarded as properly belonging to the machinists' craft. The definition of a machinist, as given at the meeting of the arbitration board in 1900, has since been largely accepted in union shops, and thus the atmosphere

^b *J.*

conditions, can now make doors, shutters, sashes, or frames with any degree of dexterity. The introduction of machinery has transferred that work to the planing mills, and the work of the house carpenter is limited to fitting the products of the mill together. When the change was first introduced, about thirty or thirty-five years ago, it affected a great reduction in the cost of building operations. The steam planer, shaper, and mortising machine began to turn out work at a cost that seemed phenomenally low when compared with the cost of the handmade product.^(a)

The trade of the cabinetmaker is likewise invaded by the machine-made goods. The cabinetmaker of to-day, even where hand work predominates, is not like his father. He makes a table top, but not the legs. The man who makes the legs can not make a wardrobe. The wardrobe hand never touches a chest of drawers, or a sideboard, or a chiffonier.^(b) Practically the only all-round cabinetmaker of the present time is the man who executes repairs. The others do not exercise the craft as a whole, but only a very small part of it. Moreover, the furniture industry of the present day is essentially a machine industry employing unskilled labor. Wages in this craft were formerly much higher than at present, and furniture making was called a good trade. In 1900, it was stated in the testimony before the Industrial Commission, wages in furniture factories thruout the country did not average more than \$1.25 a day. The furniture workers were not sufficiently organized to adjust themselves to the new conditions wrought by the rapid introduction of machinery. Consequently another class of workmen, the machine wood workers, largely composed of unskilled immigrant laborers, began rapidly to displace the skilled carpenters and cabinetmakers. According to the Report of the Industrial Commission,^(c) out of every 75 men employed in a furniture factory perhaps only 5 are skilled mechanics, the rest being simply feeders; in this way a large number of immigrants are employed, and often children and women find places. In 1900, in cabinetmaking, 50 per cent were Germans—who are considered in the trade as the best men—and 25 per cent were foreigners of other nationalities. The wages of machine wood workers vary from \$1.25 to nearly \$6 per day, the men receiving the lowest wages being box makers in large cities, and the men receiving the highest wages being last makers in New York.

The clothing industry offers another illustration of rapid transition from manufacture by hand to a factory system of production accompanied by the widespread introduction of machinery and a minute subdivision of labor. The revolution in the clothing industry in the

^a American Journal of Sociology, Vol. II, p. 786.

^b Cassier's Magazine, Vol. XX, p. 109.

^c Report of the Industrial Commission, Vol. XV, p. 424.

United States was brought about thru the introduction during the early seventies of the so-called "team work." Previously it had been the practise for a tailor to make an entire garment. A slight division of labor resulted from the use of the sewing machine, which came into use about 1850; but it was not until the seventies that the factory system in the form of the contractor's shop was predominant in the manufacture of ready-made garments. With this change in the mode of manufacture the industry no longer required skilled handicraftsmen to the same extent as formerly. The employment of men in teams to produce a single garment introduced a system of division of labor which made it unnecessary for most of the workers to be skilled artisans. Consequently it became unprofitable for employers to make use of journeymen tailors in the manufacture of ready-made garments. These men were readily replaced by unskilled Jewish, Italian, and Scandinavian immigrants, employed in teams by the so-called "contractors," whose only interest lay in the furnishing of a large product to the manufacturer at a low cost to themselves.

Under the "contracting system" the clothing manufacturers, instead of keeping tailors employed in their own shops or having the clothing sent to the homes of the individual workers to be made up, turn over the cut cloth and trimmings to a contractor, who, for a stipulated sum, agrees to have them made up into finished garments. For this purpose the contractor employs one or more teams of workmen. A team usually consists of from three to eight men, each of whom is engaged on a specific part of the garment. In a team engaged in coat making, for example, one man does the machine stitching, another sews on the sleeves, while others do the basting, buttonhole making, etc. There is also one man who does the pressing, and a girl who does the finishing and sews on the buttons. When trade is dull and the different teams compete for work, the members must either consent to work for lower wages or agree with the contractor to turn out a larger product at the end of each day for the same wages. Hence the process of "sweating," the evils of which have been frequently brought to the attention of the public thru repeated investigations and Government inquiries.

In the modern clothing factory—a still later phase of the development of the clothing industry and one which is fast superseding the contractor's shop—there is a further subdivision of labor, and a still more extensive use of the mechanical motive power and machinery. Whereas, under the contracting system 3 to 20 persons were employed in one shop, a factory now employs 200, and each garment passes thru the hands of from 50 to 100 persons. Moreover, factory production on a large scale permits the use of machinery and improved mechanical devices in working out the smallest details of garment construction. By thus subdividing complex operations the factory

system facilitates the entrance to the trade of less skilled workers. An apprentice or beginner can learn individual operations in the garment-making trade by a few weeks' training, while the simplicity of the specialized work soon permits the attainment of a speed and efficiency which the all-round journeyman tailor of former days never dreamed of acquiring.

In a shop where specialization has reached its highest development under the factory system, the different occupations comprized in the manufacture of a coat are those of the (1) fitter (who also cuts the linings, marks the pockets, and puts on tickets), (2) pocket maker, (3) canvas baster, (4) padder of lapels, (5) bar tacker (on pockets), (6) seam presser, (7) lining maker, (8) lining operator, (9) sleeve maker, (10) lining presser, (11) sleeve presser, (12) collar padder, (13) shaper, (14) baster and fuller of stay tape, (15) lining baster (prepares for machine), (16) operator, (17) presser, (18) edge cutter, (19) edge baster, (20) lining baster for shoulders, (21) operator for shoulders, (22) sleeve baster around edge, (23) collar and sleeve baster (prepares for operator), (24) presser on sleeve, (25) joiner of collar to lapel, (26) armhole baster, (27) operator who sews in sleeves, (28) garment examiner, (29) collar finisher, (30) lining finisher around armhole, (31) basting puller, (32) edge presser, (33) buttonhole cutter, (34) buttonhole maker, (35) general busheler and hanger sewer, (36) presser of entire coat, (37) button marker, (38) button sewer, and (39) busheler.^(a)

A similar multiplication of occupations with simplification of processes has taken place in the slaughtering and meat-packing industry. Before the advent of large slaughtering and packing houses a cattle butcher was an all-round workman. He knew the butchering business in all its details, and was able to kill and dress a bullock with the aid of one or two helpers. In those days it required from three to five years for a learner to become proficient as a cattle or sheep butcher. At the present time, with the minute division of labor existing in the large butchering concerns, any ordinary laborer can be trained in one of the numerous occupations within a week's time.^(b) According to Professor Commons:

It would be difficult to find another industry where division of labor has been so ingeniously and microscopically worked out. The animal has been surveyed and laid off like a map; and the men have been classified in over thirty specialties and twenty rates of pay from 16 cents to 50 cents an hour. The 50-cent man is restricted to

^a Pope, *The Clothing Industry in New York*, pp. 70, 71.

^b The butchers' union of Australia still maintains apprentice regulations, defining the period of apprenticeship and limiting the work that is to be done by an apprentice, but since the organization of the present national union of butcher workmen in this country no attempt has ever been made to institute a system of apprenticeship.

using the knife on the most delicate parts of the hide (floorman) or to using the ax in splitting the backbone (splitter); and wherever a less skilled man can be slipped in at 18 cents, 18½ cents, 20 cents, 21 cents, 22½ cents, 24 cents, 25 cents, and so on, a place is made for him and an occupation mapped out. In working on the hide alone there are nine positions at eight different rates of pay. A 20-cent man pulls off the tail, a 22½-cent man pounds off another part where the hide separates readily, and the knife of the 40-cent man cuts a different texture and has a different "feel" from that of the 50-cent man. Skill has become specialized to fit the anatomy.

In this way, in a gang of 230 men killing 105 cattle an hour there are but 11 men paid 50 cents an hour, 3 men paid 45 cents, while the number getting 20 cents and over is 86, and the number getting under 20 cents is 144.^(a)

The following table shows a list of occupations in 1903-4 in Chicago packing houses, with the number of men in each occupation for a gang of 230 men, their rates of pay, and their schedule of output:

CATTLE BUTCHERS, GANG OF 230 MEN.^(b)

No. of men.	Position.	Scale of wages per hour.	Scale of work (No. of cattle per hour), 1903-4.
3	Penner.....	\$0.18½	Left to House committee.
1	Knocker, when raising gates and dumping out..	.24	60.
	Knocking only.....	.24	80.
2	Shackler.....	.18½	Left to House committee.
2	Holster.....	.20	Left to House committee.
	Sticking.....	.32½	Left to House committee.
4	Heading and sticking.....	.32½	25.
	Heading only.....	.32½	30.
1	Dropper.....	.20	Left to House committee.
2	Pritcher up.....	.20	Left to House committee.
1	Gullet raiser.....	.20	Left to House committee.
3	Foot skinner.....	.22½	35.
3	Leg breaker.....	.25	25 sets.
1½	Ripper open.....	.25	80.
7	Floorman.....	.50	15.
1½	Breast sawyer.....	.25	75.
1½	Caul puller.....	.26½	50.
	Pulling cauls and opening eich.....	.20	40.
1	Rich opener.....	.20	75.
1	Tail ripper.....	.20	20.
3	Fell cutter.....	.27½	25.
	Cord cutter.....	.27½	Left to House committee.
2½	Rumper.....	.40	40.
3	Fell beater.....	.22½	
	Fell puller.....	.22½	60.
2	Gutter.....	.26½	40.
2½	Backer.....	.45	40.
3	Tail sawyer.....	.26½	30.
4	Splitter.....	.50	25.
2	Hanging off.....	.22½	60.
2½	Clearing out.....	.30	40.
2½	Hide dropper.....	.32½	40.
	Clear out and drop together.....	.32½	20.
1½	Neck splitter.....	.31½	60.
2½	Skirt trimmer.....	.21	60.
3	Ladder men.....	.22½	Left to House committee.
4	Bruise trimmer.....	.22½	Left to House committee.
1	Scribe sawyer.....	.20	Left to House committee.
1	Cutting out tongues.....	.21	100.
6	Boning heads.....	(c)	32½.
	All other knife men.....	.20	
	Laborers not covered by agreement.....	.16½-19½	

^a Commons, Trade Unionism and Labor Problems, p. 224.

^b Ibid., p. 226.

^c \$1.05 per 100.

In the minor branches of the slaughtering industry the division of labor is equally minute. Thus, among the beef boners there are as many as 25 occupations enumerated in the union wage scales, the highest paid receiving not more than 30 cents per hour. The sausage makers comprize 13 different occupations, and in the dry-salt department there are from 10 to 14 different occupations.

Besides the elimination of apprenticeship a notable effect of these industrial changes, resulting from the extensive use of machinery and the subdivision of labor processes, has been the constant obliteration of trade boundaries and demarcations.

Formerly the peculiar tools employed in a trade and the material worked up by the artizan were the principal criteria for designating the limits of a trade or craft. Under modern conditions, however, neither the tool nor the material affected nor the article produced can be said to distinguish one occupation from another. Occupations have been multiplied so rapidly and the gradations of skill and workmanship have become so numerous and imperceptible that it is frequently exceedingly difficult, if not impossible, to specify the distinguishing marks and characteristics which separate one group of workers from another. In a few trades, principally in the building trades and others which have not yet been materially affected by machinery and mechanical processes, tools peculiar to the trade continue to form the basis of craft demarcation. The bricklayers and masons, who have been comparatively free from the invasions of mechanical processes, still adhere to the principle that every workman using a flat trowel, whether setting masonry or laying bricks or plastering walls, is within the jurisdiction of their craft.^(a)

The plumbers likewise seek to uphold the principle that tools designate the craft,^(b) while the trade rules of the sheet-metal workers and the boiler makers and iron shipbuilders prohibit laborers and helpers working with them from using the tools peculiar to their occupation.

^a The officers of the Bricklayers and Masons' International Union are endeavoring to discourage this principle. Thus, the secretary in his Fortieth Annual Report (1905) stated:

"No organization of workmen that we know of has any hereditary or patent rights to the use of the chisel, point or pean-hammer. These belong to the stone masons' kit of tools, as well as to that of the stonecutter. * * * The one thing required, owing to conditions that exist in this country, is simply that the stone mason shall confine his use of these tools to the class or grade of work that properly comes within his province, and which has been conceded and defined as coming under the head of stone masonry. * * * The whole matter is simply a question of trade jurisdiction of certain work. This being adjusted, What does it matter, we ask, as to what tools either workman uses, so long * * * as each confines himself to his own classification of work?"—The Bricklayer and Mason, February, 1906, p. 4.

^b Plumbers, Gas and Steam Fitters' Official Journal, October, 1902, p. 25.

Probably the best example of confining the limits of trade jurisdiction to the use of the same tools is found in the stonecutting industry. The stonecutters, marble-cutters, and granite cutters are organized into separate national trade organizations, owing principally to the fact that each group requires different tools in manipulating the material upon which it works. A man who cuts granite or hard stone has to use certain kinds of tools, and these are not fitted to be used upon soft stone. The steel needs to be of the finest quality and the temper of the best. In the soft-stone industry a different kind of temper and a different treatment of the material is required. It is difficult for any one person to change from the occupation of granite to that of soft-stone cutting, and consequently the trades remain separate and independent of each other.

The manipulation of the same material by workmen of different occupations, tho often forming the basis of trade-union organization, constitutes the principle of craft demarcation in only a few instances. As far as skill and earning capacity are concerned, the different wood-working trades are separated even farther from each other than the different stonecutting trades. Machine woodworkers are composed chiefly of comparatively unskilled and poorly paid workingmen; whereas house carpenters and cabinetmakers, tho comprizing various grades of skill and workmanship among their members, are, on the whole, a higher class of mechanics; and pattern makers (who, besides the manual dexterity required in cutting patterns from wood, must possess a thoro knowledge of mechanical drawing and designing and also know something of metal molding) rank among the highest grades of skilled artisans.

Similarly, in the garment-making industry, the gradations between the different groups of workers are numerous, tho they are comprized under one international trade organization. The disparities in the earnings of the different grades and the differences in skill and training of each are such as to render inappropriate a grouping under one trade. Likewise in the glass and pottery industries, in boot and shoe making, and in tobacco manufacturing, there are numerous occupations, each separated from the others by differences in the skill, the earnings, and the physical and intellectual qualifications of the workers.

This disintegration of trades and handicrafts, wrought by the introduction of new processes, by machinery, and by the increased subdivision of labor, has had a noteworthy effect upon the organization of labor unions. In some cases it has resulted in uniting into one organization workers of varying degrees of skill, strength, and earning capacity. In other cases it has given rise to serious friction among different groups of workers, each of whose labor is closely connected with the others by the same conditions. The for a union

comprizing all workers of an industry regardless of disparities in skill and wages—while the second has produced the phenomenon of modern trade unionism known as jurisdictional disputes. Among the leading examples of the industrial type of trade-union organization are the Boot and Shoe Workers' Union, the United Garment Workers of America, and the Amalgamated Meat Cutters and Butcher Workmen of North America. Each of these will be examined in turn.

THE BOOT AND SHOE WORKERS' UNION.

In the early organizations the boot and shoe workers in the United States were separated into a number of independent unions, each occupation having its own association. The cordwainers were organized independently; the cutters also had a separate union; and the lasters were strongly organized under the Lasters' Protective Association, which was the immediate successor of the Knights of St. Crispin. Later these different branches of the shoemaking industry were united into the Boot and Shoe Workers' Union, which was formed in April, 1895, after the revolution in the industry caused by machinery had taken place. According to the constitution of the Boot and Shoe Workers' Union "any male or female boot and shoe worker over 16 years of age and actively employed at the craft is eligible to membership." (^a)

Since its organization the union has taken a conciliatory attitude toward machinery, tho its predecessors had opposed machinery until finally compelled to take a different view. Its policy has been to accept the machines and make the best of them. "Lack of intelligent and comprehensive action when lasting machines were introduced was the one thing which more than all others combined caused the destruction of the once powerful Lasters' Protective Union." (^b) No restrictions regarding machinery, wages, or the subdivision of labor in the industry are made by the present organization of boot and shoe workers, and no apprenticeship regulations are enforced. The general president of the union, in his report for 1899, stated:

Unfortunately the rapid introduction of labor-saving machinery, and the consequent subdivision and simplification of labor to the extent that skill is fast becoming unnecessary, together with the rapid development of the factory system to the point where only large capital can succeed, makes the workers in our craft hesitate as to the advisability of joining in the labor movement, lest their activity in defense of their class may cause offense to their employer and that some more submissive person may secure the coveted job. (^c)

^a Constitution of the Boot and Shoe Workers' Union, 1904, sec. 44.

^b The Union Boot and Shoe Worker, May, 1900, p. 9. Four per cent of the strikes in the boot and shoe industry between the years 1887 and 1894 were against the introduction of machinery. (Report of the Industrial Commission, Vol. XVII, p. 6. Since then there have been very few strikes under union auspices in the indu

^c Convention Proceedings of the Boot and Shoe Workers' Union, 1899, p. 4

To overcome this situation the members were urged to build the strength of the union upon beneficiary rather than defensive principles. In 1899, accordingly, they adopted a policy of high dues and benefits, which still persists in the organization.

In addition to a beneficiary system, the Boot and Shoe Workers' Union relies largely upon the influence of the union stamp for the maintenance of its power. In granting the use of the union stamp to manufacturers the union, however, makes no demands as to wages or conditions of employment, but merely seeks as far as possible to obtain exclusive employment for its members.^(a) The officers of the organization take cognizance of the fact that to enforce higher wages in union shops would lead to the defeat of the organization, competition among boot and shoe manufacturers being so keen that a slight advantage in wages of union over nonunion workmen would compel the employers of the former to go out of business. The efforts of the union are mainly directed toward advertising the union stamp, thereby increasing the demand for union-made shoes. Incidentally the organization seeks also to advance the wages of the lower-paid portion of the craft, so that an equality of earnings may be more nearly established, thus recognizing that one branch of the trade is of just as much wage importance as another and entitled to something like more equal earning capacity.^(b)

THE UNITED GARMENT WORKERS.

This organization comprizes the five principal occupations included in the manufacture of ready-made garments: (1) Cutting; (2) operating or machine work; (3) basting; (4) finishing; and (5) pressing.

CUTTING.

Cutting is considered the most skilled branch of the ready-made clothing industry, having been only slightly affected by machinery. The cutter formerly did his work entirely by the use of shears, and the custom tailors still use this method. It is laborious and expensive, but is well suited for high-grade work. In most clothing factories the present method of cutting is by means of a circular disk or knife operated by electricity and guided by the artizan. This device increases the output of the cutter, but does not replace his skill, since the same accuracy is required in guiding the knife as under the old method.

Previous to the manufacture of clothing on a large scale the greatest skill of the cutter was the designing and the fitting of a garment. In

^a Convention Proceedings of the Boot and Shoe Workers' Union, 1902, p. 9.

^b *Ibid.*, 1904, p. 22. The union stamp is granted to manufacturers of all grades of shoes, since the union endeavors to make the label of actual value to the shoe workers rather than a stamp of superior quality of goods.

merchant tailoring the cutter takes the customer's measure, cuts the goods, superintends the "try on," and acts as foreman. These functions require marked ability, and consequently the cutter who works upon custom-made goods is more highly skilled and better paid than the cutter working upon the factory product. The new class of cutters in factories do nothing but the cutting. They are differentiated from the designers, the men who design the patterns from which the cutter marks off and cuts the cloth. The latter are highly paid artists, but the number required in the industry is very limited.

The importance of the cutter in the clothing trade has been largely diminished by the introduction of standard patterns. These are placed on the goods by the "marker," whose chief skill lies in securing from a given piece of goods a maximum number of suits. The "trimmer" follows with the knife or circular disk and cuts the cloth according to the markings of the former.

Despite this division of labor, the occupations in the cutting department are the most skilled of the clothing trades. Manufacturers have undertaken to introduce workmen of less skill and experience, but such attempts have usually ended in failure.^a The cutters are the best organized of the garment workers, and in some localities they have been able to enforce apprenticeship regulations.

OPERATING OR MACHINE WORK.

Division of labor has so affected this part of the work in clothing manufacture that each operator becomes a specialist, working only on a small part of a garment. On coats and heavy material the operating is done principally by men, but on pants and vests women are largely employed.

BASTING.

This consists of the tacking down of the edges and seams of a garment and is still done largely by hand. In this line of work the practise is also to subdivide the labor and to make each worker a specialist. Part of the work of basting, especially on coats, is highly skilled hand work, and the men who do this work must be trained to it and are generally well paid. But the basting of the minor parts, such as the sleeves, lapels, and canvas, requires very little skill, and is done mainly by women and girls.

GENERAL FINISHING.

This work includes felling, tacking, sewing on buttons, and the like. It requires neither physical strength nor training, and accordingly is done by women and children, usually outside the shop. In New

^a Pope, *The Clothing Industry in New York*, pp. 22, 23.

York City it is the occupation of a large number of Italian women, who do the work in their homes, while attending to their household duties. As a whole, finishing is a very small part of the total labor involved in the manufacture of clothing.

PRESSING.

Pressing is almost universally done by men, since it demands a great deal of physical exertion. A subdivision of labor likewise obtains in this branch of the industry, and accordingly there are coat pressers, vest pressers, sleeve pressers, etc., each class trained in its own branch of work, and generally incapable of doing the work of the others. The common form of pressing in clothing factories is by the use of a large flatiron—the "goose"—which is heated on a stove or furnace and applied directly to the goods, without mechanical aid. Much physical exertion on the part of the presser has been saved by attaching the "goose" to a crane or movable arm. Within recent years an innovation in the form of a coat-pressing machine, which can be used in the less complex parts of the work, has been introduced in the trade.^a

The policy of the United Garment Workers regarding machinery and the division of labor is very similar to that of the Boot and Shoe Workers' Union. With the exception of the cutting branch of the industry no apprenticeship regulations are enforced, and the union has very little opportunity to impose restrictions regarding the system under which work is to be performed. As with the Boot and Shoe Workers, much reliance is placed upon the union label as a means to obtain better working conditions and to increase the employment of union garment workers.

THE AMALGAMATED MEAT CUTTERS AND BUTCHER WORKMEN'S UNION.

The Amalgamated Meat Cutters and Butcher Workmen's Union of North America, a national organization, contains all the workers in the slaughtering and meat-packing industry, its jurisdiction covering every wage-earner, "from the man who takes the bullock on the hoof until it goes into the hands of the consumer." The different branches of workers, where sufficient numbers are found in one locality, are organized as separate local unions, but where a sufficient number of each branch is not found in one locality they are combined into a single local organization. The policy of the Amalgamated Meat Cutters and Butcher Workmen's Union has been to organize the unskilled as well as the skilled workers in the industry, and to maintain a relatively high standard rate among the lowest grades. The general strike of the summer of 1904 was caused by a demand for a

^a Pope, *The Clothing Industry* in 3

higher minimum wage for the unskilled laborers. Previous to the strike the union was composed of 50,000 members, of whom 5,500 were cattle butchers; but of these only about 2,000 are of the most highly skilled workmen in the slaughtering industry. Their importance has brought to them the title of "butcher aristocracy." "Their strategic position is explained by the character and expensiveness of the material they work upon. The cattle butchers can do more damage than any other workmen; for a cut in the hide depreciates its value 70 cents, and a spotted or rough carcass will be the last to sell, with the risk of the rapid depreciation of a perishable product."^a

When it is impracticable or inexpedient to amalgamate under one national organization all grades of employees in an industry, or different groups of mechanics doing similar lines of work, jurisdictional disputes are not uncommon. These disputes are most frequent and serious in industries in which the labor processes are constantly undergoing change. They have practically disappeared in the textile and mining trades, but are numerous in the building and metal trades, where they are due both to the introduction of new material and the "specialization" of mechanics.

The frequency of quarrels over trade boundaries is a constant source of irritation to the officials of the American Federation of Labor, before whom they come up for adjudication. During 1903, for example, "the Electrical Workers and Machinists objected to a charter being granted to the Elevator Constructors. The Plumbers had disputes with the Metal Workers and the Electrical Workers over the question of conduit work, which was finally granted to the Electrical Workers. The Sheet Metal Workers contended with the Painters as to which union should do the glazing in metallic skylights and sashes, and the United Brotherhood of Carpenters with the Wood, Wire and Metal Lathers over the jurisdiction of wood lathing."^b

The origin and character of disputes of jurisdiction or demarcation is exemplified in the shipbuilding industry of Great Britain, concerning which Sidney and Beatrice Webb write as follows:

The gradual transformation of the passenger ship from the simple Deal lugger into an elaborate floating hotel has obscured all the old lines of division between trades. Sanitary work, for instance, has always been the special domain of the plumber, and when the sanitary appliances of ships became as elaborate as those of houses, the plumber naturally followed his work. But, from the very beginning of steam navigation, all iron piping on board a steamship, whatever its purpose, had been fitted by the engineer. Hence the plumbers and fitters both

^a Commons, *Trade Unionism and Labor Problems*, p. 223. The sheep butcher is not so highly skilled as the cattle butcher, because he pulls off three-fourths of the hide, whereas the cattle butcher can pull off only 2 per cent, the remainder requiring to be cut off neatly.

^b *Studies in American Trade Unionism*, edited by Hollander and Barnett, p. 7

complained that the "bread was being taken out of their mouths" by their rivals.

We need not recite the numberless other points at which the craftsmen working on a modern warship or Atlantic liner find each new improvement bringing different trades into sharp conflict. The Engineers have, on different occasions, quarreled on this score with the Boiler Makers, the Shipwrights, the Joiners, the Brass Workers, the Plumbers, and the Tin Plate Workers; the Boiler Makers have had their own differences with the Shipwrights, the Smiths, and the Chippers and Drillers; the Shipwrights have fought with the Calkers, the Boat and Barge Builders, the Mast and Block Makers, and the Joiners; the Joiners themselves have other quarrels with the Mill Sawyers, the Pattern Makers, the Cabinetmakers, the Upholsterers, and the French Polishers; whilst minor trades, such as the Hammermen, the Ship Painters, and the "Red Leaders," are at war all round.^(a)

One of the most recent of the important jurisdictional disputes in the United States is that prevailing in the plumbing and steam fitting trades. Plumbing, steam fitting, gas fitting, sprinkler fitting, fixture hanging, and pipe cutting are now separate occupations, tho originally all such work was done by the same workmen. With the progress of invention the trade has branched out into broader fields, and the journeymen have become specialists, each following a different line of work. Regarding this disintegration of the craft the president of the United Association of Journeymen Plumbers, Gas Fitters, etc., in his report to the thirteenth general convention, spoke as follows:

Our trade as well as others has been rapidly branching out into unknown fields, so that to-day we have branching from plumbers, gas and steam fitters an array of specialists, such as sprinkler fitters, ammonia pipe fitters, fixture hangers, beer pumpmen, and "ship plumbers," all of which properly belong to and are, in a great majority of cases, graduates of the first-named branch of our trade. While not all of the last mentioned are affiliated with the United Association, they are using the same tools and fittings and should properly affiliate.^(b)

The endeavor of the United Association of Journeymen Plumbers to control all branches of plumbing and steam fitting has led to a jurisdictional dispute with the National Association of Steam and Hot Water Fitters. The International Association of Journeymen Plumbers, Steam Fitters and Gas Fitters was first organized in 1880; went to pieces in 1888, but was reorganized in 1889 as the United Association of Journeymen Plumbers, Gas Fitters, Steam Fitters and Steam Fitters' Helpers of the United States and Canada. The year previous, 1888, the National Association of Steam and Hot Water Fitters and Helpers had been formed, which included men employed in the fitting of engine and boiler connections, and piping for power or

^a Industrial Democracy, new edition, 1902, p. 508.

^b Plumbers, Gas and Steam Fitters' Official *Journal*, 1902, p. 25.

heating purposes, for refrigerating, and for fire extinguishing. The journeymen doing this line of work had previously belonged to the plumbers' locals. Accordingly when separate national organizations were formed a jurisdictional dispute arose, the plumbers claiming that steam fitting was a branch of their trade. Ill feeling has existed between the two organizations ever since. In 1899 a charter was granted by the American Federation of Labor to the National Association of Steam and Hot Water Fitters, with the provision that steam fitters who were members of the United Association of Journeymen Plumbers might retain their membership in the latter organization if they preferred, and that steam fitters might join the plumbers' locals in towns where their number was too small to form a separate union. The United Association of Journeymen Plumbers entered a vigorous protest against the granting of this charter, and have since been seeking to have it annulled.

The jurisdictional disputes in the wood-working trades have grown out of the same conditions as that of the plumbing and steam-fitting trades. The Machine Woodworkers' International Union was formed in St. Louis, August 5, 1890. At that time both the United Brotherhood of Carpenters and Joiners and the International Furniture Workers' Union admitted machine woodworkers to membership, altho neither organization made any special effort to organize this class of mechanics. In 1894 the United Brotherhood of Carpenters conceded to the Machine Woodworkers' International Union jurisdiction over all factory woodworkers, and drew up an agreement with the latter in which the jurisdiction of each organization was defined. In the following year the Machine Woodworkers amalgamated with the International Furniture Workers' Union, thus virtually abrogating the jurisdictional agreement with the carpenters. In October, 1897, a new agreement was made whereby the Machine Woodworkers were given full jurisdiction over all mill hands, except carpenters who might at times be engaged at mill work, and except millwrights and stair builders. The United Brotherhood of Carpenters was to have sole jurisdiction over outside carpentry work and the fitting up of offices and stores.^(a) In 1898 the Carpenters in general convention abrogated all agreements made with other woodworking organizations, and ordered that no such agreements be made in the future and that no other woodworking organizations be recognized. Local and district councils of the United Brotherhood, however, were still permitted to make local agreements with other woodworking organizations by a vote of their members.^(b)

The jurisdictional dispute continued until 1900, when representatives of the Amalgamated Woodworkers presented themselves at the

^a The Carpenter, November, 1897, p. 7.

^b Ibid, October, 1898, p. 1.

general convention of the United Brotherhood of Carpenters and Joiners and tried to arrange an agreement with the latter regarding the limitations of their craft boundaries. The woodworkers claimed, besides all work in mills, the right to put up saloon, bank, and drug store fixtures manufactured in shops under their control. The carpenters refused to grant the claims of the woodworkers, at the same time asserting their jurisdiction over all carpenter work as specified in their constitution, "believing that the division of control by two organizations of one trade can not be tolerated, particularly where the standard of wages of one is lower than that maintained by the other." The Brotherhood was instructed to carry out this recommendation in each locality "in such manner as their best judgment suggests."^a

The present constitution of the United Brotherhood of Carpenters and Joiners provides for the admission to membership of journeymen carpenters and joiners, stair builders, ship builders, millwrights, planing-mill bench hands, cabinetmakers, and men running wood-working machinery. The jurisdiction of the Brotherhood is to extend over all engaged in these occupations, "whether working on the building in its erection or repairs, or employed in the preparation of material for the same." This broad claim, if conceded, would give the Brotherhood control over the members of the Amalgamated Woodworkers, whose field is embraced in the last three occupations named above.

Another instance of how the use of new materials and changes in building conditions may lead to disputes over trade jurisdiction is found in the Bricklayers and Masons' International Union. This union is one of the best organized and most independent of the building trades organizations. In the past it has held itself aloof from the general movements and alliances with which most of the other unions are affiliated. Within the last decade, however, owing principally to the fact that other trades are encroaching upon the work of bricklayers and masons, a strong sentiment of joining the American Federation of Labor has grown up within the union. The necessity is felt of an alliance with an organization which wields some influence in settling jurisdictional disputes. The officers of the union believe that the policy of isolation is inadequate to the rapidly changing conditions of the trade. New materials and processes which formerly did not compete with the bricklayers' and stonemasons' crafts are now competing actively with them. This condition is bringing with it a train of disputes involving endless trouble. Moreover, specialization within the trade is causing secession from the union, as well as the formation of smaller unions of trades which were formerly included in the older union. The Bricklayers and Masons have at present jurisdictional disputes, of more or less importance, with the Stone

^a Report of the Industrial Commission, Vol. XVII, p. 130.

Cutters' Union, the Electricians, the Elevator Constructors, and with the Terra Cotta and Tile Workers.^a)

Jurisdictional disputes in the manufacturing industries, tho less frequent than in the building and metal trades, produce the same irritation and conflict among organized workers. A recent case of friction caused by the overlapping of craft boundaries in the manufacturing trades is the jurisdictional dispute of the Journeymen Tailors' Union and the United Garment Workers. For several years there has been constant friction between the journeymen tailors and the garment workers as to the proper distinction between custom-tailored and factory-made garments. The new methods which are constantly being introduced into garment manufacturing are continually wiping out the distinct lines which divide one trade from the other. This being true, there naturally arose friction between the unions in the same industry and closely allied to one another. To eliminate this friction and to conserve the best interests of garment workers, a movement has been inaugurated to unite them all into one organization, working harmoniously for a common end.

The journeymen tailors were among the earliest craftsmen to form trade unions in the United States. Even previous to the last century we find records of their organization in New York, Philadelphia, and some other large cities of the eastern coast. In 1872 a national union was formed, but soon went out of existence. The present organization, the Journeymen Tailors' Union of America, was founded in 1893.

The manufacture of clothing on a large scale has not displaced the journeyman tailor. Rather has the ready-made clothing industry taken the place of garment making in the home. Nevertheless, the journeymen tailors have been affected in various ways by the factory system of clothing manufacture. The journeymen tailors, unlike garment workers, endeavor to maintain a sort of apprenticeship system, but owing to a number of causes very few apprentices are found to-day in the custom branch of the clothing trade. One of the principal reasons why boys do not care to remain apprentices to journeymen tailors is the rise of cheap, custom tailoring, known as "special-order work," wherein the "team system" of manufacture prevails. Within recent years large clothing firms doing a regular factory business have inaugurated a system of sending out agents all over the country to solicit special orders for "made-to-measure" garments. This class of work is not done by journeymen tailors, but by a separate class of men, whose skill ranges from that of the ordinary garment worker to that of the custom tailor. Hence, journeymen tailors' apprentices can readily enter this field of work before serving out their full term of apprenticeship. Largely for this

^a Studies in American Trade Unionism, edited by Hollander and Barnett, See also *The Bricklayer and Mason*, February, 1906.

reason the Journeymen Tailors refuse to ally themselves with the "special-order" workers.

The question of assuming jurisdiction over the "special-order" tailors has been voted upon three times in the Journeymen Tailors' Union, and in 1903 was finally defeated, despite the favorable stand taken by the officers of the union. The secretary-treasurer, Mr. John B. Lennon, took the ground that the "team system" of manufacture in custom work does not necessarily mean a deterioration in the quality of workmanship. "This change of system of making custom tailoring from the regular journeyman tailor who made the complete job, to the factory or team system," he said in a recent report, "does not necessarily mean for the average class of work a deterioration as to quality. This has heretofore been the case but I believe largely because of the fact that the regular journeymen tailors would not permit the organization of this class of work under our union, and consequently did not and would not work at it."^a Mr. Lennon urged the members to become active factors in the making of this class of work, saying that the efforts of the union to prevent the introduction of the factory method of making custom clothing had been continually disastrous, causing the work of the journeyman tailor to be restricted to a narrow field and resulting in an oversupply of labor and lower wages than formerly.

In 1903, after the refusal of the Journeymen Tailors to admit the "special-order" tailors, the United Garment Workers began to organize these workmen under a separate classification. An agreement had been drawn up in 1895 between the two organizations, whereby the Garment Workers were granted jurisdiction over "special-order" workmen in the United States and Canada, whether working under the system of the "old-time" journeymen tailors or under the factory system, when the average price at which the suit made up was sold in the United States was not more than \$25 and in Canada not more than \$18. Where the price of the suits was higher the workers could be admitted to the Journeymen Tailors' Union.^b This arrangement, however, has failed to eliminate friction between the two organizations which, it is hoped, may be eventually accomplished thru federation or amalgamation.

EFFECT OF THE DISINTEGRATION OF TRADES UPON THE SKILL OF THE WORKER.

One of the principal effects of the disintegration of trades has been the gradual breaking down of the barriers which formerly separated the skilled from the unskilled occupations. The numerous gradations of skill resulting from the extensive use of machinery and sub-

^a *The Tailor*, February, 1905, p. 6.

^b *Ibid* - 7

division of labor render it extremely difficult to classify laborers into noncompetitive groups, each upon a different plane from the others. Various classification of such industrial groups have been offered from time to time by economists. John Stuart Mill was the first English economist to attempt to grade and classify occupations into separate groups. Imprest by the difficulties which beset a parent in an attempt to bring up his son in an occupation widely different in character and of a higher grade than his own, Mill wrote concerning the different industrial groups as follows:

So complete, indeed, has hitherto been the separation, so strongly marked the line of demarcation, between the different grades of laborers, as to be almost equivalent to an hereditary distinction of caste; each employment being chiefly recruited from the children of those already employed in it, or in employments of the same rank with it in social estimation, or from the children of persons who, if originally of a lower rank, have succeeded in raising themselves by their exertions. The liberal professions are mostly supplied by the sons of either the professional, or the idle classes: the more highly skilled manual employments are filled up from the sons of skilled artisans, or the class of tradesmen who rank with them; the lower classes of skilled employments are in a similar case; and unskilled laborers, with occasional exceptions, remain from father to son in their pristine condition.^(a)

According to the above statement of Mill, industrial society may be roughly divided into four groups: (1) Liberal professions, (2) skilled manual employment, (3) the lower class of employed artisans, and (4) the unskilled, common laborers. Tho these four groups were held to be practically noncompetitive, Mill nevertheless recognized a tendency toward the breaking down of the barriers which separated one from the others.

Mill's classification of industrial groups was adopted by the English economist, John Elliott Cairnes, the latter emphasizing the noncompetitive character of the different groups. The classification of Sidney and Beatrice Webb, which differs only slightly from that of Mill and Cairnes, distinguishes the character of the four industrial groups as: (1) Manual work, (2) routine mental work, (3) artistic work, and (4) intellectual work.

A classification very similar to the above but more suited to our existing conditions is given by Prof. Franklin L. Giddings. His divisions are: (1) Automatic manual labor, including common laborers and machine attendants; (2) responsible manual labor, including those who can be trusted with some responsibility and labor of self-direction; (3) brain workers, such as bookkeepers; (4) responsible brain workers, including superintendents and directors.

^a John Stuart Mill, *The Principles of Political Economy*, New York, 1883, Vol. I. p. 480.

All the above classifications are open to the objection that they draw broad lines of division, which under actual conditions do not exist. The numerous gradations, not only among workers practising the same trade, but in industrial society as a whole, do not permit a strict classification of separate industrial groups. Certain classes of workers in the manual occupations, however, have similar characteristics and are on the same social and industrial plane as regards skill and apprenticeship. Confining ourselves accordingly to manual trades we may roughly divide industrial workers into two categories:

(1) Those who, from their natural ability or training, have become proficient in all branches of a trade or craft; men who are not only able to do the finer kinds of work, but because of their training and skill, are also able to perform their work intelligently without the constant supervision and direction of others. These men receive relatively higher wages in all countries, and by their skill are enabled to adjust accurately their tools to the machinery and manipulate them so that the work may be turned out with accuracy and rapidity.

(2) The second category comprises the bulk of the unskilled workers; men who have not the ability or who are not sufficiently trained to become skilful mechanics. These men have not the knowledge or ability to intelligently perform all the processes of a trade, but when given a simple service to perform, or when placed in charge of a machine to which the material is adjusted, they are able to turn out accurate work, and one of them, in some cases, may take charge of several machines. If a man of this class is intelligent and is rapid as well as accurate in his movements, he may in time acquire a skill which may increase his earnings to that of the trained mechanic.

The problem, however, is complicated by the difficulty of defining skill. Under modern conditions, skill implies not only manual dexterity, but speed and accuracy. It is measured not only by the quality of the product, but also by the quantity of the product. While there is a certain degree of skill and intelligence required in the commonest kind of labor (the terms "skilled" and "unskilled" labor are relative terms), nevertheless, in the sense in which the term "skilled" and "unskilled" are used, unskilled labor is generally understood as that labor which does not require experience in order to perform it with a degree of efficiency and rapidity of movement that will enable it to give the satisfaction desired by the employer. Skilled laborers, on the other hand, are those who have sufficient experience and training in the character of the work which they perform to do it both efficiently and speedily. The effect of new processes and machinery in modern industry has been to enhance quantitative skill, while decreasing the relative importance of qualitative skill. Quantitative skill implies close applica-

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more generally recognize in the skilled worker, implies both manual dexterity and a thoro knowledge of the processes of a trade.

Whether the evolution of modern industry is tending to displace manual skill by intellectual skill is a mooted question with economists. Prof. Alfred Marshall, a leading English economist, maintains that manual skill is losing importance relatively to general intelligence and vigor of character, and this skill with which we are familiar nowadays we do not often recognize as skill.

In districts in which manufactures have long been domiciled, a habit of responsibility, of carefulness and promptitude in handling expensive machinery and materials becomes the common property of all; and then much of the work of tending machinery is said to be entirely mechanical and unskilled, and to call forth no human faculty that is worthy of esteem. But in fact it is probable that not one-tenth of the present populations of the world have the mental and moral faculties, the intelligence, and the self-control that are required for it: perhaps not one-half could be made to do the work well by steady training for two generations. Even of a manufacturing population only a small part are capable of doing many of the tasks that appear at first sight to be entirely monotonous. Machine weaving, for instance, simple as it seems, is divided into higher and lower grades; and most of those who work in the lower grades have not "the stuff in them" that is required for weaving with several colors. And the differences are even greater in industries that deal with hard materials, wood, or metals, or ceramics.^(a)

Professor Marshall supports his theory that the tendency of modern machine production is to enhance the intelligence of the worker by reference to the development of the watch-making industry in the United States and the introduction of the linotype in the printers' trade. He further states that:

New machinery, when just invented, generally requires a great deal of care and attention. But the work of its attendant is always being sifted; that which is uniform and monotonous is gradually taken over by the machine, which thus becomes steadily more and more automatic and self-acting; till at last there is nothing for the hand to do, but to supply the material at certain intervals and to take away the work when finished. There still remains the responsibility for seeing that the machinery is in good order and working smoothly; but even this task is often made light by the introduction of an automatic movement, which brings the machine to a stop the instant anything goes wrong.^(b)

^a Marshall, *Principles of Economics*, Vol. I, p. 261.

^b *Ibid.*, p. 316. Professor Marshall's opinion is supported by Mr. Sydney Chapman, in a work entitled *The Lancashire Cotton Industry*, p. 83, who writes: "The more automatic the machinery the more exacting on the whole is the call made upon the intelligence of the operatives. For automatic machines are probably complicated and possibly delicate and expensive. The operatives managing them must understand them if the best results are to be secured. The perfecting of machinery, therefore, must ultimately be accompanied by a demand for more thoughtful, better educated and more highly paid labor."

Prof. John A. Hobson differs from Professor Marshall in regard to the effect of machinery upon the intellectual skill of the artisan. He holds that the machine operator does not necessarily require a greater display of judgment than the hand worker. Such higher intellectual judgment is possessed by the inventor rather than the machine attendant. He admits, however, that—

The growth of machinery has acted as an enormous stimulant to the study of natural laws. A larger and larger proportion of human effort is absorbed in processes of invention, in the manipulation of commerce on an increasing scale of magnitude and complexity, and in such management of machinery and men as requires and educates high intellectual faculties of observation, judgment and speculative imagination. Of that portion of workers who may be said, within limits, to control machinery, there can be no question that the total effect of machinery has been highly educative. Some measure of these educative influences descends even to the "hand" who tends some minute portion of machinery.^(a)

Again, in speaking of the effect of machinery in industry, he says:

The growth of machine industry then may be measured by the increased number and complexity of the processes related to one another in the mechanical unit or machine, and by a corresponding shrinkage of the dependence of the product upon the skill and volition of the human being who tends or cooperates with the machine. Every product made by tool or machine is qua industrial product or commodity the expression of the thought and will of man; but as machine production becomes more highly developed, more and more of the thought and will of the inventor, less and less of that of the immediate human agent or machine tender is expressed in the product.^(b)

The almost universal opinion of workingmen is that machinery tends constantly to lower the skill of the workers. Thus Mr. T. V. Powderly, former general master workman of the Knights of Labor, at the Sixth Annual Convention of Labor Commissioners, in Indianapolis in 1888, said:

It is neither profitable nor encouraging to learn a trade when the chances are that some morning the mechanic will awake to find a machine standing in his place doing the work which he performed the day before. Inventions have been introduced so rapidly and extensively during the last ten years that many trades have been almost revolutionized. The rapid introduction of machinery has a tendency to depress wages; the reduction in wages and the lack of security in workshop management has been the cause of sending many a boy to college who would have gone into the workshop after passing through the routine of the common public school.^(c)

^a Political Science Quarterly, Vol. VIII, 1893, p. 116.

^b Evolution of Modern Capitalism, p. 49.

^c Quoted in Lavasseur, *The American Workman*, p. 92. For opinions regarding effect of machinery see Report of the Industrial Commission, Vol. VII, pp. 121, 606, 744, 780.

Mrs. Fanny B. Ames, former factory inspector for the State of Massachusetts, in her testimony before the Industrial Commission, stated that with the invention of machinery unskilled workers are retained as machine workers, while hand labor is continually remanded to higher artistic work.^(a)

Whatever may be the effect upon the general intelligence of the workers, it can not be denied that the tendency of machinery and the new processes of production is to replace the skill of the handicraftsman. A new form of skill, however, may be created, a skill which is dependent largely upon the character of the machines introduced. If the machine or new process is automatic and simple in character, comparatively little skill is generally required of the attendant, tho mechanical skill may be required of the person who adjusts the material to the machine. If, on the other hand, the machine requires care and dexterity in its management, involving a knowledge of its mechanism on the part of the operator, a new kind of skill may be demanded which, in some cases, may be of a higher grade than that possessed by the hand worker. Moreover, where the machine work requires close mental application, severe nervous tension, and rapidity of movement, a "physical" or quantitative rather than qualitative skill may be demanded of the attendant.

MEASUREMENT OF SKILL.

Altho practically it is impossible to apply any single conclusive criterion by which skill may be measured, there are, nevertheless, certain conditions which distinguish the different kinds and grades of labor known as skilled and unskilled. Generally speaking, the skill of an occupation may be determined (1) by the training or experience essential to competency; (2) by the character and social conditions of the workers, and (3) by their standard of earnings. These criteria may be applied either separately or together, each being gaged by the circumstances and conditions which alter or determine its effect. In considering the problem whether skill has increased or decreased in certain trades it will be necessary to sum up the evidence concerning changes in the amount of necessary training, as well as evidence bearing on the character and conditions of the workers, their wages, etc.

TRAINING OR EXPERIENCE ESSENTIAL TO COMPETENCY.

As a general rule a long term of apprenticeship prevailing in a trade denotes a high grade of skill. The time required to learn the trade, however, is not necessarily exactly equal to the prescribed apprenticeship fixed by employers and unions in the different trades,

^a Report of the Industrial Commission, Vol. VII, p. 60.

since conditions other than the skill essential to the craft may determine the apprenticeship period enforced by a trade organization. The period fixt by several American unions is frequently alleged to be excessive and artificial.^(a) The five years' term of the Glass Bottle Blowers' Association, for example, is enforced only as a concession to the employers, who are enabled thereby to employ a journeyman at apprenticeship wages. An apprentice glass-bottle blower generally becomes efficient inside of half the term of apprenticeship.^(b)

Similarly the term of apprenticeship for a kiln man in pottery is fixt by the union at three years; but the most radical of the employers declare "that an apprentice is a kiln man in one year if he is ever going to be."^(c) The three years of apprenticeship of the Cigar Makers' Union under modern conditions is likewise held to be excessive and is enforced only in exceptional cases.^(d) Immigrants after a few weeks' instruction are enabled to roll cigars with moderate speed and accuracy, and after a few months of steady practise become proficient in their line of work.

A number of national trade unions seek to prevent the excessive exploitation of apprentices by employers, insisting that apprentices receive journeymen's wages at the termination of the apprenticeship period fixt by the union rules. The endeavor, likewise, is to have the earnings of the apprentice increased at successive periods during the term, so that in the last months of apprenticeship his earnings will approach the journeymen's scale. Thus the Dish Makers and Pressers, who are an important branch of the Brotherhood of Operative Potters, endeavor as far as practicable to limit the apprenticeship period in their trade to five years, and insist that

^a Ex-Commissioner of Labor Carroll D. Wright testified before the Industrial Commission that it was claimed by some writers that the old system of apprenticeship under modern conditions had become in a certain sense robbery of the apprentice, who is kept on apprentice work long after he had become a skilled laborer.—Report of the Industrial Commission, Vol. VII, p. 18.

^b Report of the Industrial Commission, Vol. VII, p. 110. See also Eleventh Special Report of the Bureau of Labor, p. 639. In his report to the twenty-sixth convention of the Glass Blowers' Association President Denis Hayes stated that "No one will attempt to controvert the fact that compelling an apprentice in the bottle trade to serve five years for half pay is an injustice, not only to the boy himself, but to the journeymen, whose labor he often displaces."—Proceedings of the 26th Annual Convention of the Glass Bottle Blowers' Association, 1902, p. 50.

^c See Eleventh Special Report of the Commissioner of Labor, p. 672. In reply to this union officials say, as regards the mere matter of placing saggars in a kiln, it is true, but "should any problem of economic kiln filling arise or anything happen by which the responsibility of placing the ware in the kiln fell upon this man and an unusual assortment of ware be presented, he would lose the firm more in a week than they should ever hope to gain by having their own way about apprentices."

^d Eleventh Special Report of the Commissioner of Labor, p. 581; also Report of the Industrial Commission, Vol. VII, p. 181.

thereafter the apprentice receive journeymen wages. The Glass Bottle Blowers' Association likewise limits the period to five years, while the stonecutters', bricklayers', cigar makers', and pattern makers' unions do not permit an apprentice to serve longer than the term stated in the constitution of the international organization.^(a)

Probably a better test of skill in a trade than that of the term of apprenticeship as fixt by employers and trades unions is the experience and practise that is ordinarily required for advancement from the lower to the higher grades of workmanship in a craft. Progression within a trade permits a boy to move from the simpler to the more complex operations at a rate commensurate with his diligence and dexterity, thus giving those who have extraordinary ability or who apply themselves earnestly to their work an opportunity to pass rapidly thru the various stages of apprenticeship. Consequently the so-called "helper system" of entrance to a trade, as we shall explain later, is more adapted to modern conditions than the apprenticeship system. By the "helper system" is meant the process of "moving up" the person desiring to become a proficient mechanic in a trade or occupation. The "helper" as a beginner does the simpler kinds of work, but as he gains experience he gradually acquires sufficient application and proficiency to enable him to work upon the more complex processes of the craft. The essential distinctions between this system of promotion and that of apprenticeship is that no formal instructions are given the "helper" and no definite period of training is required.

CHARACTER AND SOCIAL CONDITIONS OF WORKERS.

The character and social conditions of workers afford a rude test of the skill required in their trade. Men of a high order of intellectual powers and manual dexterity and judgment as a general rule avoid entering the lower grades of unskilled occupations, especially when they have the opportunity of adapting themselves to more remunerative employments. Accordingly, when new processes in a trade result in a loss of skill or a decline of the manual and intellectual requisites on the part of the worker, they who were formerly occupied therein either continue to ply their trade under the old methods or abandon it altogether.^(b)

Owing largely to this reason the unskilled trades, or trades in which skill is declining, are largely recruited, especially in the United

^a The controversy between journeymen and employers over apprenticeship is seldom concerned with the length of term of apprenticeship. The disputes are generally about the number of apprentices permitted in the trade.

^b "Where skilled labor is replaced by unskilled, the paramount importance of maintaining the standard of life warns off the hand worker, both from any claim to work the new process and from any attempt to compete in cheapness with machine work." *Webb, Industrial Democracy*, new edition, 1902, p. 427.

States, from country laborers or unskilled immigrants. The history of the textile industry "will serve to remind us that many of those who perform the more monotonous parts of manufacturing work are as a rule not skilled workers who have come down to it from a higher class of work, but unskilled workers who have risen to it. A great number of those who work in the Lancashire cotton mills have come there from poverty-stricken districts of Ireland, while others are the descendants of paupers and people of weak physique, who were sent there in large numbers early in the century from the most miserable conditions of life in the poorest agricultural districts, where the laborers were fed and housed almost worse than the animals whom they tended."^(a)

The position of the unskilled immigrant in industry is very similar to that of a boy who must start out to earn his own living, but who can not afford either the time or the expense involved in acquiring a skilled occupation. He accordingly seeks employment that demands very little experience or previous training as a requisite for competency, but which insures an immediate income sufficient for a livelihood. As a general rule, newly arrived immigrants, when accepting employment, have little regard for the possibilities of the future industrial betterment which such employment offers. Their prime object is to acquire an industrial foothold without the loss of time and effort involved in preparation for an industrial career. Accordingly, the bulk of immigrants enter such employments which, owing either to the extensive use of machinery or to subdivision of labor, require on their part little previous training or intellectual equipment.

The immigrants who enter the unskilled employments must be distinguished from foreign mechanics who have received their industrial training abroad, and who are enabled thereby to resume their occupation in this country. Immigrants entering the stonecutting trades, for example, are generally skilled workmen, mostly Italians, who have served an apprenticeship in their native land. It has been the custom for these foreigners, known as "harvesters," to come to this country during seasons of prosperity and work at stonecutting until the dull season sets in, when they return to their homes. Mr. D. F. Kennedy, testifying before the Industrial Commission, stated that in the stonecutting trades three-fifths of the workers learned their craft in the old country.^(b) The native stonecutters were formerly much injured by the competition of these foreigners, and in order to discourage their immigration the union requires from foreign stonecutters an initiation fee of \$50, whereas Americans are charged but \$10.

^a Marshall, *Principles of Economics*, Vol. I, p. 325.

^b *Report of the Industrial Commission*, Vol. IV.

In view of the large influx of unskilled foreigners the number of skilled mechanics who come into this country is relatively insignificant. The restrictive policy of trade unions regarding admission of foreigners, together with the alien contract labor law, tends to discourage the immigration of skilled mechanics to the United States.

The most important of the modern industries which have been largely invaded by unskilled immigrant labor are: (1) Cotton manufacturing; (2) clothing manufacturing; (3) slaughtering and meat packing; (4) coal mining; (5) boot and shoe making, and (6) machine woodworking. Machine stonecutting and machine iron molding are also being rapidly taken over by immigrant laborers, since in these trades the hand workers do not adapt themselves to the machines.

The textile industries for more than half a century have been a favorable field for cheap immigrant labor. The lowest paid operatives in the New England States are in the textile cities and work in the textile industries. Requiring a comparatively low grade of skill, the work in textile mills takes a class of people as operatives that would not be in demand in other industries requiring higher education and better opportunities. Practically the only native operatives in the cotton mills at the present time are found in the South. In other sections immigrants are employed as operatives almost exclusively. The earliest immigrants to enter cotton mills were the Irish, Scotch, and English. These have been largely displaced in the lower grades of work by French Canadians, and by Portuguese, Poles, and other nationalities from eastern Europe.

The character of the population in the New England cotton-mill towns is almost entirely foreign. The percentage of native-born Americans among cotton-mill employees is exceedingly small, and these are found generally in the higher positions. Thus, in the last census, it was shown that the population of Fall River, 104,863 people, contained only 14,619 of native American parentage. Of the rest, 17,000 were of English, 18,000 of Irish, and 30,000 of French Canadian parentage. The populations of Lowell and New Bedford also are largely made up of persons of foreign parentage.

The recent mechanical improvements in cotton spinning and weaving, including the automatic loom with warp stop-motion attachment and the ring spinning frame, are mainly responsible for the displacement of the former operatives by immigrants. "The nationality of the operatives is changing, and the workers on the whole are not considered as efficient or as thrifty as in the past. Some time since the textile foreign population in Massachusetts was largely English, but we find them supplanted by French Canadians, who in turn gave way largely to the Portuguese. Now the Poles, Jews, and Greeks are being employed in large numbers at textile work." It is asserted by the manufacturers that the introduction of this unskilled, inex-

perienced labor into the mills is not desired by them, but "they claim to be practically forced into the position on account of the scarcity of help which * * * is prevalent in all textile centers."^(a)

In earlier times many of the immigrants from England and Ireland who entered the cotton mills were previously trained in the work and consequently were well adapted to it. At present there is very little immigration of this class of skilled operatives. The newcomers in the industry are largely inexperienced and unskilled immigrants, regarding whom Mr. T. M. Young writes as follows:

Compared with the Lancashire standard, the mill labor obtainable at Fall River is dear and bad—dear because America is now riding on the top of a wave of commercial and industrial prosperity, employment is plentiful, and the standard of expenditure for every class is high; bad because everybody there is climbing up the social ladder as fast as he can, and the cotton industry, being one of its lowest rungs, receives the beginners. Even a good mill in New England loses 5 per cent of its work people every week, and has to find substitutes. There are towns in Massachusetts whose cotton mills thirty or forty years ago were filled with American-born work people of a very good class, earning wages higher than are paid even to-day. As wages gradually fell by successive "cuts" to the low level of 1898 these towns were swept by waves of foreign invasion. Weavers from England and Scotland first drove out the Americans, only to be driven out in their turn by an army of Irish. The Irish began after awhile to be troublesome, and crowds of French Canadians were summoned from over the borders to take their places. Even the docile "Kanucks" have now given way in some places to Portuguese, Greek, and Syrian immigrants, and the mill superintendents are wondering what will come next. I have seen in some mills notices printed in four languages and orders given by gestures or thru interpreters. The labor displaced by immigration rises to better things, and the expansion of American industry provides at present openings for all.^(b)

The rapid movement of immigrant labor, not only from place to place, but also from trade to trade, makes it difficult to organize operatives in the cotton mills. The "mule" spinners alone (mule spinning being a skilled craft) are well organized, but mule spinning is being gradually abandoned in favor of ring spinning, for which cheap, unskilled female labor can be employed.

The development of the clothing industry in the United States is likewise producing changes in the character and skill of the operatives. The most noteworthy effect of the continuous process of subdividing the labor among garment workers has been the introduction of less skilled immigrant labor in the industry. The Jewish immigrants displaced the native and the Irish garment workers who did their work in their homes, each operator making the entire garment complete. Within recent years the tendency has been for Italian immigrants to

^a Bulletin of the Massachusetts Bureau of Statistics of Labor, No. 37, p. 186.

^b The American Cotton Industry, p. 12.

replace Jewish immigrants, especially in factories where a minute system of division of labor prevails. The Italian, when he first comes to this country, is willing to work for less wages than the Jewish garment worker. According to the Report of the Industrial Commission:

The Italian tailor in his own country receives only about one-half the wages received by the Russian, Polish, Hungarian, and Roumanian Jews in their own countries, and about one-quarter of the wages paid for similar grades of work in western Europe. Consequently, in the United States, with his standard of living, he can successfully compete with the newly-arrived Russian Jew and four to one against the newly-arrived German or Englishman. The Russian Jew who is not a tailor, but learned his work in this country and works in the shop as operator or presser, is usually from the stock of small business men in the old country, who have a fairly good standard of living, and is regarded among the clothing workers as of the better class. He will insist on better living and higher wages for his particular kind of work than the tailor.^(a)

Another advantage which the Italians have is the employment of their wives and sisters. The Italian and his wife will work in the shop together. If he is a pants operator she becomes his helper, or if he is a coat maker she is his baster and finisher. The labor of both covers the expenses of the family. In the case of the Jews, the Jewish woman will not work in the shop after she is married. Thus the Italian and his wife can work together for the same price which the Jew will demand for his labor alone, and in this way the Italian is able to displace the Jew in the garment trades.^(b)

A similar substitution of races arising from changes in labor processes has taken place in the bituminous mining industry. Mining machines have displaced a large number of soft-coal miners and increased the number of unskilled men in the mines. With the exception of the machine operators, who must be trained in their work, practically no other skilled worker need be employed in the mining of coal with machines. Under the hand system one man undercuts by hand and takes the coal down by hand, and does everything; but with the use of the machines the labor is subdivided, thus leading to an influx of unskilled immigrant workers whose only qualification is the power of great physical endurance.

In the machine mine it takes seven or eight men to perform these various functions, and, in the mine as in the mill, the machine is the master and the men are its servitors. The operator of the mechanism simply directs its energies, when the motive power is given to it, and the coal is undercut or mined; the blaster follows with drills and explosives to loosen the mass; the loaders reduce it and shovel it into pit cars; the timbermen follow and prop the roof which no longer has the mineral to rest upon; laborers assist in every process, and a

^a Report of the Industrial Commission, Vol. XV, p. 325.

^b *Ibid.*, p. 326.

machinist is retained for repairs. Each one does his certain portion of the work and no more, and doubtless does it better as well as faster by reason of his greater skill thus acquired. * * * Herein lies the chief value of the machine to the mine owner. It relieves him for the most part of skilled labor, and of all the restraints which that implies; it opens to him the whole labor market from which to recruit his forces, it enables him to concentrate the work of the mine at given points, and it admits of the graduation of wages to specific work, and the payment of wages by the day.^(a)

Regarding the effect of machine mining upon the character of the mine worker, President John Mitchell stated before the Twelfth General Convention of the United Mine Workers:

If the rapid increase [of machine coal mining] is continued a few years longer the skill now required by those engaged in the mining of coal will be no longer necessary, and instead of being a body of tradesmen or skilled workers we shall become simply coal shovelers, whose only essential qualifications in securing employment will be the possession of a strong back and an abundance of physical energy.^(b)

Mr. Mitchell, in his testimony before the Industrial Commission, stated emphatically that the men employed in machine mining do not require as much experience and skill as is required in hand mining.

It takes two men to handle the machine. That requires the skilled men, but after that is done it requires unskilled men, because they only load the cars; because they only shoot it down, and what is required most is a man with a strong back who can shovel lots of coal.^(c)

The fact that the relative proportion of unskilled to skilled labor is increased by the use of coal-mining machines has caused a lower grade of workers to enter the bituminous mines. The coal-mining industry of the United States has been a field peculiarly affected by the influx of fresh immigrants, but in the earlier days these were composed largely of Scotchmen, Welshmen, and Irishmen who had had previous experience at mining. Under the present system of mining the immigrant requires no previous experience, and consequently we find inexperienced Italians, Slavs, and often Negroes taking the place of the Scotch, Irish, and American miners. In Illinois the Slavs predominate. The great majority of them have entered this field since 1894, their introduction being brought about thru the general strike of the American and western European miners. According to Professor Commons:

The English-speaking miners universally show an inclination to keep Slavs and Italians from coming into the mines, and their immigration has been very slight since 1897. Practically the only way in which the Slav coming from the old country can now get employ-

^a Fifth Biennial Report of the Illinois Bureau of Labor Statistics, 1887-1888, p. 340.

^b Proceedings of the Twelfth Convention of United Mine Workers.

^c *Report of the Industrial Commission*.

ment as a miner is thru the intervention of a relative or friend who agrees to be responsible for him. The State law requires two men to work together in a "room," and the miners' union requires them to share their earnings equally. Consequently a new miner who wants work must find an old miner who will teach him and share with him. This naturally is not easy to do. Furthermore, he must serve a year's apprenticeship above ground as a laborer before going below. This applies to miners proper who are paid by the ton. A different restriction * * * exists for "mine workers," who are paid by the day.^(a)

The Mine Workers' Union endeavors to organize all workers in the coal mines regardless of their skill or nationality. The English-speaking miners, however, do not look with favor upon the large influx of immigrants into the unions.

The substitution of races in the slaughtering and meat packing industry has been an almost continuous process during the last twenty years. About 1886 the workers were American, Irish, and German. After that date the Bohemians entered in large numbers, few of them having begun work as early as 1882. The Bohemians worked their way forward until, after a few years, one-half of the killing gangs were Bohemians, the others being Germans, Irish, and Americans. The Americans as wage-earners have been driven practically out of the stock yards, and are being followed by the Irish and German. Those who have accumulated money leave for something more certain. According to Professor Commons:

The older nationalities have already disappeared from the unskilled occupations, most of which now are entirely manned by Slovaks, Poles, and Lithuanians. The Poles began to appear at about the same time as the Bohemians, tho not in as large numbers; and they have not advanced in the same proportion. The Slovaks and Lithuanians were first seen in 1899. One Slovak who has been in the yards ten years has worked himself up to a 50-cent job; but he is exceptional, and these two races have as yet only shared with the Negroes the unskilled positions. The Negroes first came during the strike of 1894, when many were imported from the South and large cities.

* * * * *

The substitution of races has evidently run along the line of lower standards of living. The latest arrivals, the Lithuanians and Slovaks, are probably the most oppressed of the peasants of Europe; and 18 cents for a day of twelve or fourteen hours in the Carpathian foothills becomes 18 cents an hour in the stock yards. Even with only four days' work a week, the Slovak's position is greatly improved, for in Uhrosko he had no work in winter. Yet his improved position shows itself, not in more expensive living, but in fabulous savings gained by packing sometimes as many as 12 persons in three rooms, taking in boarders, and sending his children to work. The new arrivals of

^a Commons, Trade Unionism and Labor Problems, p. 344.

this class of labor swell the ranks of the thousands waiting at the packing-house gates every morning.^(a)

Machinery, breaking down the apprenticeship regulations, has been partly responsible for the introduction of unskilled immigrant labor into the boot and shoe industry. In 1900, according to testimony before the Industrial Commission, probably 85 per cent of the workers were native born.^(b) The declines in wages that had occurred in the industry up to that time were ascribed to the rapid introduction of machinery and to lack of organization, due to the mixt nationalities which had entered the trade. In addition to the Irish, Germans, and French Canadians of earlier years, Armenians and Italians have recently been introduced in the boot and shoe industries in limited numbers. In the West, Swedes, Norwegians, Germans, Irish, and English are largely employed in boot and shoe factories. The French Canadians were the first immigrants brought into the boot and shoe industry, and they still form a large and important element in the membership of the organization. The Boot and Shoe Workers' Union publishes its journal partly in French to reach this class of workers.

In the woodworking and furniture industries also the enormous development in recent years of the factory product has been accompanied by a corresponding influx of immigrants. Work which the carpenter formerly executed at the place of building is now prepared beforehand in factories, and these factories are manned to the extent of 50 to 75 per cent by foreigners. The woodworking factory is essentially a machine industry with unskilled labor. This industry is located principally in Illinois, Michigan, and Wisconsin. In the furniture factory the greater number of workmen are merely feeders of automatic machines. In this way a large number of immigrants are employed, and often women and children find places. In cabinet-making 50 per cent are Germans, who are considered the best men in the trade, and 25 per cent are foreigners of other nationalities, while 25 per cent are native born. In furniture factories in country districts in Wisconsin the Germans have worked at a wage as low as 50 cents a day, their women also doing carpenter work at the bench.^(c)

Cigar making was never a highly skilled trade except for the better grades of work, and consequently has been ever since the beginning largely performed by foreigners. The first immigrant cigar makers in the United States were principally Cubans and Spaniards, who did a high grade of work. These have been largely replaced by Bohemians and other European immigrants. The immigrants as a rule do not serve an apprenticeship, but are taught the trade in nonunion shops, usually by small manufacturers in the same manner

^a Commons, *Trade Unionism and Labor Problems*, pp. 246-248.

^b Report of the Industrial Commission, Vol. XV, p. 422.

^c *Ibid.*, pp. 423, 424.

as garment workers in large cities receive their instruction. After working a few years on the cheaper grades of cigars in nonunion shops, and when they have become proficient enough to do finer grades of work and earn the union scale, they join the organization. There is at present a school in New York for teaching cigar making. It was established in 1898, and now trains annually about 400 persons, most of them women and girls. The charge for instruction is \$10, but some who plead poverty are charged only \$5. An immigrant learning both "bunch making" and "rolling," and changing from one to the other, requires usually about three months to become sufficiently proficient to turn out a marketable product. At the end of about four weeks, however, most of the pupils leave the school and seek employment in the shops, either as "bunch makers" or "rollers."

THE EMPLOYMENT OF WOMEN AND CHILDREN.

The displacement of men by women or children is generally an indication of loss of skill in a manual occupation. Since their industrial activity is usually ended in marriage, women, as a general rule, do not care to undergo a long and rigid training in preparation for an industrial career. Their position in the industrial world, therefore, tho somewhat analogous to that of the unskilled immigrant, is peculiar. As stated by Prof. John A. Hobson:

A large proportion of the woman's industrial career is occupied in acquiring the experience which makes her a valuable worker, and the probability that, after she has acquired it, she may not need to use it, diminishes both directly and indirectly the net value of her industrial life; the element of uncertainty and instability prevents the advancement of competent women to posts where fixity of tenure is an important factor.^a

Owing to these reasons women workers rarely enter the highly skilled manual trades. They accordingly replace men only in such occupations where little training and practise is required for proficiency.

The employment of women in industry, moreover, is limited further by the fact that many occupations are unquestionably beyond their physical powers. The tendency to increase the speed of machinery and strain the nervous powers of the operatives is undoubtedly the foremost deterrent to the replacement of men by women in the important manufacturing industries. This will be explained more fully by an inquiry into the employment of women in such industries as (1) cigar making, (2) clothing manufacturing, (3) cotton manufacturing, (4) boot and shoe making, and (5) printing.

Cigar manufacturing offers a good illustration of an industry in which female are steadily replacing male workers, owing both to

^a Evolution of Modern Capitalism, p. 302.

fact that the labor therein has suffered loss of skill and that comparatively little physical strain is demanded of the operative. The cigar-making trades were first entered by women and children when, in the early seventies, the introduction of the "mold" gave rise to the system of division of labor or "team work," known as "bunch and filler breaking." From that time the number of women workers steadily increased. When the "suction tables" came into use as a device for assisting in the rolling of cigars by hand, the employers early instituted the practise of having them operated by females in place of males. The number of cigars produced by the suction table has been constantly increasing relatively to the handmade product. Consequently the increase of women workers has been more rapid than that of male employees. This is partially shown in the following table of the number of male and female workers in cigar and cigarette manufacturing in the United States at decennial periods from 1860 to 1900:

MALE AND FEMALE WORKERS IN CIGAR AND CIGARETTE MANUFACTURING IN THE UNITED STATES AT DECENNIAL PERIODS, 1860 TO 1900.

[From the Twelfth Census, Vol. IX, p. 645.]

Year.	Male employees 16 years of age or over.	Per cent of increase over pre- vious census.	Female employees 16 years of age or over.	Per cent of increase over pre- vious census.
1860.....	7,266	.....	731	.....
1870.....	21,409	194.6	2,615	257.7
1880.....	40,099	87.3	9,108	248.3
1890.....	59,452	48.3	24,214	165.9
1900.....	62,168	4.6	37,762	56.0

Undoubtedly the rapid increase in the number of females employed in the production of cigars and cigarettes is due partly to the development in cigarette manufacturing as well as to the extensive use of machinery. The relative production of cigars and cigarettes at decennial periods from 1870 to 1900 is as follows:

PRODUCTION OF CIGARS AND CIGARETTES AT DECENNIAL PERIODS, 1870 TO 1900.

[From the Twelfth Census, Vol. IX, p. 652.]

Year.	Cigars.	Cigarettes.
1870.....	1,139,470,774	13,881,417
1880.....	2,367,803,248	408,708,366
1890.....	4,087,889,983	2,233,254,680
1900.....	5,963,170,381	2,639,899,785

Altho the Cigar Makers' International Union has never excluded female hand workers from membership but few of these are included in its ranks. In the report of the international president, September, 1900, the number of female cigar makers was reported as

38,518, of whom only 3,238, or about 8 per cent were women. These are exclusively "hand workers," since the union does not admit to membership the "suction-table" operators. It is obvious that the percentage of women hand cigar makers in the industry is larger.^(a) The probable reason for the small number of women cigar makers in the union is that women as well as immigrants are employed principally in the manufacture of cheap cigars, a class of work done largely by nonunion cigar makers.

When the machines, combined with the "team system," gradually began to replace the male hand workers on the cheaper grades of cigars, these workers were driven into the finer grades. Clear Havana fillers and other high-grade cigars, which were formerly made exclusively by Spaniards and Cubans, are now made largely by American cigar makers. This class of work is known as "Spanish work," and is much more remunerative than the cheaper grades of work. The principal difficulties in the way of men competing with the machine operators and women workers on the cheaper grades of cigars seem to arise from the lower wages received by the latter.^(b)

The tendency for female to replace male labor as a result of new processes and subdivisions of labor is not so pronounced in garment manufacturing as in cigar making. Women have always actively participated in the manufacture of ready-made clothing. Previous to the introduction of the factory system in this industry they did the work in their homes. Their earnings were then comparatively small, and they literally toiled "in poverty, hunger, and dirt."

The women home workers usually worked on all parts of the garment, but with the coming of the factory system in the early seventies there arose a division of labor following sex lines. Except in the manufacture of overalls, shirts, and other clothing for workingmen, women's labor at present is confined largely to the minor parts. Work requiring skill and physical endurance is now done by men. In 1900, Henry White, the secretary of the United Garment Workers, testified before the Industrial Commission that at least one-fourth of the workers in the garment industry were women.^(c) This ratio, however, includes the women workers upon overalls and workingmen's clothing.

There are certain well-defined parts of the work on men's clothing that are universally performed by women, but there is much of the

^a According to statistics gathered by the Cigar Makers' International Union in 1901 the total number of hand cigar makers in the United States and Canada was 77,101, of whom 22,250 were reported to be females.

^b Altho refusing the privilege of the label to manufacturers using machines, the cigar makers' unions have endeavored on several occasions to organize the machine operators into a separate branch of their organization. They have not succeeded, however, and practically all cigars made by machine are produced by nonunion labor.

^c Report of the Industrial Commission, Vol. VII, p. 182.

labor that may be done by either men or women, the custom varying in different communities. In a community where the cheapest clothing is made, or where it is manufactured on a large scale, the percentage of women employed is the smallest. New York, Pennsylvania, and Maryland, the three leading States in the industry, have a smaller percentage of women workers in the clothing industry than the rest of the United States. Probably the principal reason for the smaller percentage of women in these States is the higher speed maintained by the men workers.

NUMBER AND PER CENT OF WOMEN AND CHILDREN IN THE MANUFACTURE OF MEN'S CLOTHING, FACTORY PRODUCT, IN SIX STATES AND IN THE UNITED STATES, 1900.

[From the Twelfth Census, Vol. 1X, p. 263.]

State.	Number of women.	Percent of total employees.	Number of children.	Percent of total employees.
New York.....	16,700	40.44	326	0.79
Illinois.....	9,105	60.79	778	5.19
Pennsylvania.....	5,115	48.73	358	3.32
Maryland.....	5,202	53.49	594	6.11
Ohio.....	4,365	66.94	176	2.70
Missouri.....	5,098	83.18	74	1.21
United States.....	69,862	57.76	3,011	2.49

Of the total 120,950 clothing workers in the country at large in 1900, 57.76 per cent were women. Only five States have as low a percentage. "The conclusion which is to be drawn is that while a large part of the work in this industry has been and will continue to be performed by women, a wide extension of this field is characteristic rather of the less important States than of those that have succeeded in dominating this trade. If immigration were to be greatly restricted, however, it is possible that this situation would be altered, since the male labor, which has contributed so largely to the growth of the clothing trade in New York, Chicago, Philadelphia, and Baltimore, is largely that of immigrants."^a

By far the largest number of women in the clothing industry are employed at basting and finishing, work requiring the least skill and physical exertion. Only when basting is much subdivided and the operations require little skill, such as padding lapels and basting sleeves, is the work relegated to women. The basting of heavy garments and of complicated parts of the work which require skill is

^a Willet, *Employment of Women in the Clothing Trade*, in *Columbia Studies in History, Economics, and Public Law*, Vol. XVI, No. 2, p. 55. The work generally performed by women inside the shop is the following: (1) Tacking, (2) felling, (3) edge basting, (4) sewing buttons, (5) basting armholes, (6) padding lapels, (7) hand buttonholing, (8) basting sleeves, (9) basting canvas, (10) operating, (11) busheling, (12) overcasting, (13) finishing, (14) sewing on pockets, (15) pocket making. On pants, inside the shop, the work done by the women is (1) operating, (2) basting, (3) busheling, and (4) sewing. Making of vests women are employed in all divisions.

done by men. Skilled women basters (usually Jewish women) are employed on light work, such as basting on vests and pants, work which is within their physical endurance. "From a study of New York City alone it would be natural to conclude either that machine operating and basting on men's clothing was, except in rare instances, beyond the physical strength of women, or that the skill demanded was such as they could acquire only with great difficulty. Yet in other cities women are employed as operators and basters on all but the heaviest grade of goods. In Chicago, for example, there are coat factories in which all the machine work is done by Polish or Bohemian women and girls. In the face of such facts broad generalizations on the subject of the work for which women are suited must be made with great care."^(a)

There is practically only one branch of the work in which women are not found, i. e., the work of pressing. This work is unquestionably too arduous for them.

The proportion of women employed in the clothing factories in New York, according to Mrs. Mabel Hurd Willet, varies in coat shops from 16 to 37.5 per cent of the total employees, averaging about 26 per cent; in the vest shops the average is 48 per cent, and in pants shops as high as 60 per cent. In computing these averages the women finishers who take out work to be done at home are included among the employees.^(b) The effect of outside employment is to scatter the work among a larger number of women than if done in the shop by employees devoting themselves exclusively to the work.

From evidence thus far adduced there seems to be no likelihood that the percentage of women in the clothing industry will continue to increase; first, because of the constant tendency to increase the speed of the workers, thus taxing more and more the physical endurance of the workers, and secondly, owing to the possibility of employing new immigrant male labor more profitably than female labor. Men work more steadily than women, while among certain classes of immigrants, such as Jews and Poles, women work in the factory only so long as they remain unmarried. Consequently, upon reaching a certain age, a majority of them cease to be active workers. In New York fewer women are employed in some of the less skilled branches of the work than one might expect. Pocket making, sleeve making, seam stitching, and other light operations require as much skill as does general operating, and the men performing this work frequently earn high wages. In Chicago, however, the situation is very different from that in New York. The factory system there has been associated from the first with the employment of women as operators.^(c)

^a Willet, *Employment of Women in the Clothing Trade*, p. 67.

^b *Id.*, p. 65.

^c *Id.*, p. 71.

But it is a well-known fact that the pace set by the Jewish men in the garment industry is one that women have not been able to maintain, and employers have frequently found it more profitable to employ men even on the lighter work, such as basting, which requires little skill and which was done formerly almost exclusively by women.

Yet, despite the above statement, the census figures show that the relative decrease in the number of women workers in the manufacture of men's clothing is less rapid than that of the men workers. Thus, between 1890 and 1900, the men 16 years of age or over employed in the manufacture of men's clothing decreased from 67,786 to 48,077, or 29.1 per cent, while the women workers 16 years of age or over decreased from 75,621 to 69,862, or only 7.6 per cent. These figures are admittedly incomplete.^(a)

The number of children employed in the clothing industry has never been great. The work that children can do is limited to pulling bastings, sewing on buttons, carrying bundles, and the like; operations which are but a small part of the manufacturing processes. It is evident that not many children are employed as operators.

Women and children came into the occupations of boot and shoe manufacturing with the advent of machinery in the industry. As in the manufacture of clothing, however, their field has been limited to a few occupations not requiring strength or physical endurance. A definite tendency of displacement of male by female operatives, however, can be traced. In the New England States such displacement has taken place in comparatively few factories, tho in other sections of the country it is not uncommon to find women and girls operating machines and doing work that was formerly done by men. On the other hand, in the West and South, men and boys have for years been employed in the stitching of uppers and in work performed almost exclusively by women in New England.^(b)

According to the Twelfth Census, the employees in the boot and shoe industry in the years 1880, 1890, and 1900 were divided as follows:

NUMBER OF EMPLOYEES IN THE BOOT AND SHOE INDUSTRY AT DECENNIAL PERIODS, 1880 TO 1900.

[From the Twelfth Census, Vol. IX, p. 741.]

	1900.	1890.	1880.	Percent of increase.	
				1890 to 1900.	1880 to 1890.
Males (over 16 years).....	91,215	91,406	82,547	0.2	10.7
Females (over 16 years).....	47,186	39,849	25,122	18.4	58.6
Children (under 16 years).....	4,521	2,435	3,483	85.7	30.1
Total.....	142,922	133,690	111,152	6.9	50.3

^a Twelfth Census, Vol. IX, p. 261.

^b Thirteenth Annual Report of the Commissioner of Labor, p. 122

^c Decrease.

It will be noted from this table that the number of females of 16 years of age or over employed in the industry increased 18.4 per cent during the decade between 1890 and 1900, whereas the number of males 16 years of age or over decreased 0.2 per cent. Children employed in the industry increased 85.7 per cent. These figures plainly show that the number of women and children engaged in the boot and shoe industry has been advancing during the last ten years. "To a considerable extent women have taken the place of men in operating the lighter machines, while children now perform work that women were doing heretofore."^(a)

A limit to the increase in the number of women workers in the boot and shoe industry can undoubtedly be explained by the fact that the increasing speed of the worker tends to make labor a race, and that the nervous strain of doing the same thing over and over again as rapidly as possible has a wearing effect. A man operating a heel-nailing machine will nail on as many as forty 60-pair cases of heels in a day—that is, 2,400 pairs or 4,800 shoes, in a day. One not accustomed to it would wonder how a man could pick up and lay down 4,800 shoes in a day, to say nothing of putting them on a jack into a machine and having them nailed on.^(b)

Since the introduction of machinery in the textile industry women and children have formed an important element of the operatives. With the exception of weaving, however, certain occupations (generally those requiring the least skill and physical power) have been taken over entirely by women, and, as in the clothing industry, division of employment is along sex lines. In spite of the fact that female ring spinners are gradually displacing the skilled male mule spinners, there seems to be no tendency for the proportion of women employed in cotton manufacture to increase. In fact, the census figures in the following table show a movement in the opposite direction:

EMPLOYEES IN COTTON MANUFACTURE OF THE UNITED STATES AT DECENNIAL PERIODS, 1850 TO 1900.

[From the Twelfth Census, Vol. IX, p. 27.]

Year.	Men 16 years of age or over.		Women 16 years of age or over.		Children under 16 years of age.	
	Number.	Per cent of increase.	Number.	Per cent of increase.	Number.	Per cent of increase.
1850.....	33,150		59,126			
1860.....	40,839	41.4	75,109	27.1		
1870.....	42,790	c 8.7	69,637	c 7.4	22,942	
1880.....	61,700	44.3	84,558	21.4	28,341	23.5
1890.....	88,837	43.8	106,607	26.1	23,432	c 17.3
1900.....	134,354	51.2	123,709	10.0	39,866	70.1

^a Twelfth Census, Vol. IX, pp. 741, 742.

^b Report of the Industrial Commission, Vol. VII, p. 363.

^c Decrease.

The importance of the figures * * * is enhanced by the circumstance that the cotton-manufacturing industry is typical of the factory system in its highest form and on the largest scale. There is scarcely another industry that approaches it in the numbers of hands employed within mills; and the numbers of men and women employed are more nearly equal than is the case with any other industry of a magnitude to be compared with this.^(a)

The relative decline in the number of women employed in the industry during the last decade is undoubtedly due largely to the displacement of female weavers. In fact the tendency "is so marked that the next enumeration should show the men in a majority."^(b) According to the returns of the Census of 1900 (which are considered incomplete) there were 91,515 weavers in the United States, of whom 41,776 were men, 47,941 were women, and 1,798 were children. There are no earlier returns with which to compare these numbers, "but it is well known to those conversant with the industry that only a few years ago the weaving of cotton goods was regarded as peculiarly the work of women."^(c)

Still other causes to which the decline in the relative number of women in cotton manufacture may be attributed are, first, the speeding of machinery, making the work more intense and nerve racking, and, secondly, the displacement of female operatives by male immigrants. The first cause is undoubtedly the more important of the two. Employers and employees may differ as to the difficulty in managing the increased number of machines placed in charge of individual operatives, but it is generally admitted that the work is growing more intense.^(d) The testimony of a representative of the Cotton Weavers' Association before the Industrial Commission shows this increasing strain of work. He said:

Anybody who works in the mills now knows it is not like it was twenty-five or thirty years ago, because the speed of the machinery has been increased to such an extent, and they have to keep up with it. In some mills in this city [Fall River], and probably in other cities in this State, the operative is compelled to turn off so much production per week, and if the production does not come up to the point, he or she is discharged. * * * There was a time when that was not the case. They took their sewing and their knitting along, and there was no anxiety about how much work they could get off, but it is [not] so now. * * * Now they work from the time they go in until they come out.^(e)

^a Twelfth Census, Vol. IX, p. 31.

^b *Ibid.*, p. 33.

^c Twelfth Census, Vol. IX, p. 33. Mr. T. M. Young (American Cotton Industry) cites several instances where, within the same mill, the ordinary looms were operated by women, whereas the improved automatic looms were in charge of male weavers.

^d Report of Massachusetts Board to Investigate the "Subject of the Unemployed," as quoted in Levasseur, *The American Workman*, p. 93.

^e Report of the Industrial Commission, Vol. XIV, p. 578.

The increase in the number of children employed in cotton manufacture, shown in the table on page 726, is undoubtedly due to the expansion of the industry in the South, and does not represent a permanent tendency toward the employment of children in cotton mills.

The printing industry further exemplifies the limitations to the employment of female labor. The high average of speed maintained by linotype operators is the foremost factor in preventing the displacement of men by women in this line of work. When the machines first came into use there was a great fear among the printers that female stenographers would work the machines, a fear arising from the close resemblance of the keyboard of the linotype to that of the typewriter. While it is true that women learn to operate the machines readily they have not the endurance to maintain continually the speed which men maintain. Up to the present time no definite tendency to replace male by female labor upon the machines has appeared. The proportion of female to male operators, according to the latest available statistics, is smaller than the proportion of female to male hand compositors. The following is a statistical table of male and female operators, both union and nonunion, compiled by the secretary of the International Typographical Union for the year beginning January, 1904:

UNION AND NONUNION MACHINE OPERATORS OF EACH SEX AND TOTAL MACHINE TENDERS AND OPERATOR MACHINISTS IN THE PRINTING INDUSTRY, 1904.

Class of employees.	Union.	Non-union.	Total.	Per cent of union of total.
Male machine operators.....	8,526	519	9,045	94.26
Female machine operators.....	325	195	520	62.50
Machine tenders.....	596	31	627	95.05
Operator machinists.....	970	69	1,039	93.35
Total.....	10,417	814	11,231	92.75

In January, 1904, the number of women operating typesetting and type casting machines in the United States and Canada, according to the above table, was 520, about 5 per cent of the total number of linotype operators. The number of women engaged in the United States in 1900 as compositors, according to the United States Census, was 9,617, about 26 per cent of the total number of compositors.^(a) The proportion of nonunion female to nonunion male operators is, however, greater than the proportion of union female to union male operators. The policy of the Typographical Union in insisting that the women workers receive the same compensation as the men doing the same class of work has tended to limit the number of women employed in union printing offices. Employers prefer male to female printers, when the same rate of compensation is demanded by each.

^a Twelfth Census, Vol. II, p. 507.

THE LOWERING OF WAGES AS EVIDENCE OF LOSS OF SKILL.

Altho the lowering of the standard of earnings in a trade or industry is very often an evidence of declining skill, the exceptions are so important as to render this criterion almost nugatory. It is evident that when a labor saving or cheapening invention dispenses, to a limited extent, with any particular trade or calling and the essential work remaining is restricted to a narrow field, or crowded into a certain season, there must be economic waste thru excessive competition of the workers and thru the intervals of enforced idleness on the part of the men who are displaced thereby. This circumstance will result in a lowering of wages until the conditions in the trade are readjusted. The increased productivity of the new process makes possible, however, the payment of a relatively higher scale of wages than formerly, especially when the new process is introduced gradually and the old process competes with it.

The effect of such competition between the product of machine and hand workers is well exemplified in the glass industry. When the fruit jar blowing machine was first introduced, about 1890, the hand blowers endeavored to meet the competition by consenting to work 45 per cent below the scale. This reduction, however, did not prevent the wider use of the machine, tho about 600 hand fruit jar blowers were members of the union at the time of the introduction of the machine. At present practically no fruit jars are made by hand, the disparity in the labor cost between blowing by the hand and the machine processes being such as to eliminate entirely the hand-made product. The displaced hand fruit jar blowers were accordingly compelled to take up other lines of employment or work at lower wages as gatherers and finishers.

The making of milk jars by machinery followed that of fruit jars, but the hand operators did not attempt to compete with the machine. A similar policy is also being pursued in regard to the recently invented beer bottle machine. There are about 1,900 beer bottle blowers in the Glass Blowers' Association, whom it is expected the machine will eventually displace. Since the use of the machine is controlled by one company the product is being introduced gradually, causing only a gradual displacement of the hand beer bottle blowers. The endeavor of the union is to place the hand beer bottle blowers upon other makes of ware, but considerable difficulty is experienced in accomplishing the transition, owing to the fact that the beer bottle blowers are specialists and must undergo a new apprenticeship training when transferred to other lines of work.

Despite the elimination of the skilled hand worker in some branches of the glass industry by the introduction of machinery, no general reduction of wages has resulted. In 1900 it was stated authorita-

tively that the machine operators in the manufacture of lamp chimneys were earning 50 per cent more than the hand workers, averaging \$6 per day.^(a) Bottle-machine operators also earn relatively high wages. At the twenty-seventh annual convention of the Glass Blowers' Association (1903) the machines and the wages of the operators were reported as follows:^(b)

	Per day.
Operators of bottle machines.....	\$4.00 to \$6.00
Operators of jar machines.....	3.50 to 7.00
Operators of finishing machines.....	5.00 to 6.00

The minimum wages of both hand and machine operators is fixed by the constitution and rules of the Glass Bottle Blowers' Association at \$20 per week in cash.^(c)

Bituminous coal mining is another industry in which the machine operators receive higher wages than hand workers. The United Mine Workers enforce a differential rate in the bituminous States for hand and machine mining. In 1900, in the State of Ohio, the rate for machine mining was two-thirds and in Indiana it was three-fourths of the rate for hand mining. Owing to the increased output of the machine-mined product those working with the machines can earn more than those working by the hand process, altho the former possess much less skill and training than the latter.^(d) The purpose of the United Mine Workers' Union is to keep the standard rate of earnings of the machine miners as high as possible, in order to mitigate the evil effects of the too rapid introduction of the machines. President John Mitchell, of the United Mine Workers, stated before the Industrial Commission:

We are opposed to the introduction of mining machinery for the reason that the men have to compete with the machine; * * * we must dig coal by hand as cheap as the machine will dig it, allowing for the cost of the machine.^(e)

The large economy of the machine method makes it possible to pay much higher wages with increased profit to capital and without reducing the price of the product. The Mine Workers' Union, by

^a National Glass Budget, June 9, 1900, p. 1.

^b Proceedings of the Twenty-seventh Annual Convention of the Glass Bottle Blowers' Association, pp. 49, 50.

^c Wage Scale and Working Rules adopted by the Glass Bottle Blowers' Association, etc., 1905-6, p. 82.

^d Report of the Industrial Commission, Vol. XV, p. 404.

^e Report of the Industrial Commission, Vol. XII, p. 55. To the Twelfth Convention of the United Mine Workers (1901) Mr. Mitchell said: "While we owe it to ourselves and to our craft to protect our trade against the encroachment of mining machinery, I do not wish to be regarded as one who would obstruct progress or favor retrogression; but I am unalterably opposed to a system which places a premium upon machinery, all the benefits of which are given to the mine owners."—Proceedings of the Twelfth Convention of the United Mine Workers of America, p. 46.

their insistence that the net earnings of the machine miner be higher than the hand miner, have thus prevented a reduction of the wages of the hand miners whose product must compete with the machine product.

METHODS OF PREVENTING DISPLACEMENT OF SKILL.

The entrance to the clearly defined trades of former days were defended by apprenticeship rules and regulations intended to safeguard the skill and maintain the wages of the workers. Since trades have begun to disintegrate and apprenticeship rules have become obsolescent, since the time of training has been shortened and the gates have been thrown down for floods of new workers, immigrants, and women and children, new methods have been devised by the workers to prevent the displacement of skill and to control the condition of entrance to the trades. The methods most frequently employed are:

(1) Opposition to machinery and new processes, or claim of jurisdiction over the machine operators.

(2) Prohibition of the grading of members of the craft.

(3) Prohibition of the use of journeymen's tools by laborers and helpers, or the debarment of helpers and handy men from certain lines of work.

(4) Rules against "lumping" or subcontracting and team work.

Each of these will be considered in turn.

OPPOSITION TO MACHINERY AND NEW PROCESSES.

Since the beginning of the modern era of machine industry workmen, whether organized or unorganized, have regarded with dislike every labor-saving device or mechanical improvement introduced in their own craft. In the early days they frequently assumed an attitude of open hostility, destroying the machines and driving away the operators. In more recent times, however, this policy has been abandoned, but labor organizations, while disclaiming hostility to machines or new processes, have endeavored in a number of instances to devise rules to retard their introduction and hinder their immediate use. A double motive underlies this policy. One concerns itself with the fear of displacement of the hand worker and the ultimate elimination of the craft, while the other arises from the effect of machinery in wholly or partially depriving certain handicraftsmen of their acquired skill. This motive is exemplified in the history of several of the leading American trade unions, notably those of the plumbers, the cigar makers, and the stonecutters.

PLUMBING.

Until a decade or so ago the "idle" time of the journeyman plumber (during which he was not engaged on outside jobs) was occupied in making lead traps and bends and other plumbing fixtures, which have since past to the foundry or workshop. At the present time only a few plumbers of the old school can make lead traps and their services are never required for the work. A man sitting at a modern machine can now turn out many scores of traps or other "fixings" in the time formerly required by the plumber to make two or three. Besides, the product of the machine is superior in many ways to the hand-made article. The work and skill required in connecting fixtures in buildings have also been materially lessened by more recent inventions. The slow skilful handling of lead has been superseded to a great extent by new and less expensive methods.

To protect the trade against a further loss of skill the rules of the plumbers contain a long list of plumbing goods, such as drum traps with outlets and screws attached, lead pipes with ferrules and nipples attached, etc., the use of which they endeavor to stop. The rules likewise contain a recommendation that all members advocate the use of iron sewer pipes in buildings, "believing that it will benefit the health of the community and create a demand for more skilled labor." It is also provided that all brass and nickel waste, flush, and supply pipe shall be prepared by the plumber who places it in position. "These rules to be enforced wherever practicable."^(a)

CIGAR MAKERS.

Prior to 1861 cigar, snuff, and tobacco products in all styles were manufactured, wholesaled, and frequently retailed on the same premises. The employees in the tobacco industry were all-round men and worked in all departments of the business, making cigars, snuff, and smoking tobacco. Moreover, there was an entire absence of the machinery used in modern manufacture, and consequently the business was conducted on a very small scale. In fact the employer often worked at the same bench with his employees. Often his helpers were fed and lodged by him, and in some cases were paid a portion of the product as wages.^(b)

The introduction of modern machinery led to a transition from this domestic system to a factory system of tobacco manufacture, causing at the same time a division of the industry into various branches, each branch producing a single class of goods. Cigars are now manufactured on a large scale by establishments located usually in large cities, equipped with modern and expensive machinery, employ

^a Report of the Industrial Commission, Vol. XVII, p. 160.

^b Tobacco, November 3, 1893, p. 1.

thousands of wage-earners and manufacturing millions of cigars annually. The prepared filler is placed in the hopper of a machine which apportions the quantity necessary for each cigar, places it in the mold spread to receive it by the operator of the machine, and shapes it. The wrapper is subsequently added by hand or machinery. There are also stripping machines for removing the midrib from the tobacco leaf, besides the "bunching" machines for preparing the tobacco for the wrapper.

Division of labor in the trade also plays an important part, which may be inferred in the following processes: "Booking" consists in straightening out and dampening the leaves; "stripping" is drawing out the large midrib of the leaf. Girls are usually employed at this work. "Bunch making" is the selection and shaping of the "filler" tobacco. This is usually done by hand on the 10-cent cigars and by the mold on the 5-cent cigars. "Rolling" consists in cutting the wrapper and then rolling it around the filler. This is done by hand or by the aid of the "suction table," the latter being a metal plate with perforations for air suction, so as to hold the leaf in place. The plate also cuts the leaf to the exact shape desired for the wrapper. Either with or without the suction table the cigar must be rolled by hand, but the table permits less skilled workmen and girls to take the place of the skilled mechanics.

The "suction table" can not really be called a machine, since it is not a labor-saving device. It is simply a device for facilitating the work. It is not automatic, but assists the hand worker in measuring and cutting the cigar wrapper. Much of the skill of the hand worker consists in cutting the wrapper the correct size and rolling it smoothly over the "bunch." The "suction table" does the measuring by means of a die consisting of a perforated steel plate. The air suction holds the wrapper tightly over the die while a lever to which a roller is attached is moved by the operator over the die. This operation practically gives the wrapper its proper shape, and by raising the die by means of a foot lever the operator is enabled to separate the superfluous portion of the wrapper. The air suction keeps the wrapper taut over the die, enabling the operator to roll the "bunch" with less care than without the aid of the table.

The mold, which is a device for shaping the "filler," or "bunch," was introduced in 1869. It likewise simply facilitates hand labor and is not a machine. The effect of the introduction of the mold was the inauguration of the "team system" of manufacture. Previously it was customary for one cigar maker to shape the "filler" and also roll the wrapper, thus producing the complete cigar.

The Cigar Makers' International Union did not prohibit its members from working with the "molds" when they first came into use. Considerable opposition, however, was met in many localities on the

part of the cigar makers who rebelled against the use of the mold and the "team system" of manufacture. Tho not directly opposing the use of the molds the Cigar Makers' International Union at first insisted that the "bunch maker" as well as the "roller" should join its ranks, and granted the label only to the shops conforming to this rule.^(a)

This clause was found impracticable of enforcement and was soon repealed.

The attitude of the Cigar Makers' International Union toward the "suction table" has been one of opposition. In 1887, when the "suction table" was rapidly coming into general use, the president of the International Union recommended that manufacturers using the machine should not be allowed the union label. This rule has since been adopted, and still forms a part of the constitution of the Cigar Makers' International Union.^(b)

The opposition of hand cigar makers to both the mold and the suction table is due largely to the fact that the use of these devices for facilitating their work causes a loss of much of the skill acquired by them in learning the trade. The occupation of cigar making became so simple thereby that employers early inaugurated the practise of employing women and children in place of adult male cigar makers. The machine workers are not considered cigar makers by the union, and consequently are not admitted to membership. The following extract from a letter of Mr. G. W. Perkins, president of the Cigar Makers' International Union, dated May 6, 1903, and contained in the Eleventh Special Report of the Commissioner of Labor, states the attitude of the union toward the machines:

Replying to your query with reference to the attitude of the Cigar Makers' International Union toward machinery, let me say that, first, the International Union does not prohibit its members from working on machines. There are, however, no machines manufactured that will successfully make cigars. For that reason we do not allow the use of our labels on cigars made by machines. The reason for this is, that if our label means anything, it means good wages and good workmanship.^(c)

STONECUTTING.

The stonecutting interests in large cities have gradually introduced machinery for dressing cut stone for building purposes. The machine known as the "planer" was introduced in the eighties, but attention was not drawn to it by stonecutters until the early nineties. The stone "pick" came into use later, as did also pneumatic tools for carving. When first introduced stonecutting machinery was not

^a Constitution of the Cigar Makers' International Union, 1888, Art. II, section 9.

^b Constitution of the Cigar Makers' International Union, section 154.

^c Eleventh Special Report of the Commissioner of Labor, p. 572.

operated by journeymen stonecutters, but by such laborers as showed skill in operating machinery similar to the machines in planing mills, sash, door, and blind factories. As the use of the machines extended, and journeymen stonecutters began to be displaced thereby, the first impulse of the journeymen stonecutters was to oppose and endeavor to abolish their use.^(a) Where this was found impracticable they insisted that the planers be operated by journeymen stonecutters, who should receive the standard rate paid for hand labor. Thus, in 1896, in Chicago, the local journeymen stonecutters' union notified the contractors that all planers and lathes in stone yards on and after March 1 of that year must be operated by union stonecutters at the rate of 50 cents per hour at an eight-hour day.^(a) The strike that followed resulted in an agreement between the union and the contractors which provided that one-half of the persons employed in operating machinery should be stonecutters and the other half planer hands.

The stone pick is a heavy tool shaped like a pick for digging, and it takes the place of the point and hammer. It is used more in quarries than in stone yards. With it a workman can do two or three times as much work in a day as with a point and hammer. The Journeyman Stone Cutters' Association excluded the use of the pick by the following by-law, adopted in 1902, on the ground that its use required nothing but brute strength, and it afforded a means of supplanting skilled stonecutters with mere laborers:

This association will use every effort to discourage the use of what is known as a stone-pick, and in no case shall the pick be used on any stone that is to be shipped to any place where the pick is prohibited.^(b)

Pneumatic tools have been in general use in the stonecutting industry since the early nineties. They do better work, cut clearer lines, and make more accurate curved work than can be done with a mallet and chisel. The union has never objected to their use, since they do not do away with the skill of the journeyman stonecutter. As much care and accuracy are required in guiding the tool as were formerly required in working with a mallet and chisel.

The policy of the union in endeavoring to restrict the use of stonecutting machinery has not been very successful, owing to the fact that little skill is required to operate the machines, and it has not been usual for the stonecutting contractors to employ journeymen stonecutters as machine operators. The only requirements of the planer operator are a strong back and great physical endurance. At present, in most localities, where the planers are in use, they are operated by common laborers. The scope of the planer and other machinery in

^a Report of the Industrial Commission, Vol. VIII, pp. 355, 356.

^b Eleventh Special Report of the Commissioner of Labor, p. 344.

the stonecutting industry, however, is limited. The planer and the so-called circular saws can do only straight and circular cuts; hence, the stonecutting machinery does not entirely deprive the stonecutter of his art. Moreover, the cheapening of stonecutting thru the use of machinery has resulted in a larger use of stone for building purposes, and has consequently increased the demand for skilled stonecutters.

CLAIM OF JURISDICTION OVER MACHINE OPERATORS.

When opposition to machinery and new processes is found to be impracticable or otherwise undesirable, trade unions endeavor, as far as possible, to protect the old members against loss of skill or wholesale displacement: First, by assuming jurisdiction over men employed in the new process, and secondly, by insisting that they receive a relatively higher wage scale than the workers under the old process.

This policy has been pursued with varying degrees of success in the glass industry, printing trade, iron molding, and also in the soft-coal mining industry.

GLASS INDUSTRY.

Up to a decade ago the glass trade was considered as being free from the use of machinery or mechanical appliances. Following the introduction of the jar-making machines, machines for making tumblers and chimneys came into use. For a time the manufacture of narrow-neck bottles with necks less than 1 inch in diameter was considered beyond the possibility of machine manufacture. Within the last two years, however, machines have been introduced for the manufacture of beer and other narrow-necked bottles. In addition to the machine for making fruit jars and beer bottles already mentioned window-glass machines have been introduced within the last few years, but thus far little is known of them or of their practical value, as secrecy is maintained by the manufacturers in regard to their use. It is claimed, however, that no high-waged labor is required in attending them, as no blower or gatherer is needed. One ordinary workman at laborer's wages operates two machines.^(a)

When, in 1898, an automatic machine for blowing lamp chimneys was introduced much excitement was created in the trade, and to prevent demoralization of the industry a company was formed in 1899 to control the machine. It was claimed then that these machines were averaging about 2,000 chimneys per turn, at a labor cost of \$5, whereas the cost of about 250 chimneys per turn in the hand shop was about \$3.50.^(b)

The first impulse of the flint glass workers' union, when the chimney blowing machine was introduced, was to oppose it, their members

^a National Glass Budget, March 14, 1903.

^b Ibid, May, 27, 1899.

refusing to work the machine. The machine, however, was formally recognized by the general convention of Flint Glass Workers in 1899, but certain restrictions were placed upon its use. The number of hours that it could be worked were limited, and the union insisted that it be operated only by members of their organization. These rules have since been a source of trouble between the manufacturers and the union, and therefore have been modified from time to time.

The glass-bottle blowers, unlike the flint-glass workers, made no opposition when the fruit-jar machines were introduced, and, as previously mentioned, the portion of their membership working on this ware consented to work 45 per cent off the scale. They, however, also insisted that the operators be members of their own organization and that its members be given preference to run the machines when new men were put on.^(a) The union has not always succeeded in this demand, especially in case where very little skill is required in operating the machine. The organization at present, however, comprizes a machine and press department, for which a special scale of wages is annually drawn up. Included in this branch are the machine operators on milk jars and wide-neck ware, such as vaseline, stove polish, octagonal, hexagonal, and square bottles. A three-years' apprenticeship is required for men in this branch, whereas five years are required for hand blowers. In 1903, 400 members, constituting about 5 per cent of the entire membership, were reported in the machine and press department of the Glass Bottle Blowers' Association.

The officers of the Glass Bottle Blowers' Association have repeatedly urged the members not to oppose the machines, and when given work upon them to bring out their best possibilities. The president's report to the convention of 1898 stated:

There is no denying the fact that the machine is now becoming a pronounced factor in our trade. It is our duty to do all in our power to provide some means or encourage every prospect that will lead to the employment of our members displaced by machinery.^(b)

To the twenty-fifth convention the president, Mr. Denis Hayes, repeated this warning, adding:

To my mind the most logical way to meet this question is not to antagonize machinery, but to endeavor to control it, so that we may not only have a voice in the fixing of the labor cost of its product, but in a measure regulate the hours of operation.

As a result of both the conciliatory policy of the unions and the increased productivity, as we have already shown, mechanical improvements in the glass industry have entailed neither a lowering

^a Proceedings of the Twenty-second Convention of the Glass Bottle Blowers' Association, 1898, p. 12.

^b Ibid., p. 13.

of wages nor a lessening of the number of men employed. The effect has been rather to relieve much of the physical strain of the labor, thus bringing into the industry a more intelligent and temperate class of men.^(a)

IRON MOLDING.

As in the glass industry, labor-saving machinery was not a serious factor of the foundry until within the last ten years. Of late, however, molding machines have undergone a wonderful development and are beginning to be seriously reckoned with by the hand molder. The first attempt to aid the hand work in molding was a device known as a stripping plate, by means of which the sand and rough surface of the pattern is stripped off. This device has been in use for more than two decades, but it can not be called a molding machine since it does not "draw" the pattern from the mold. Its uses have been multiplied, and it has been attached to the various types of molding machines later introduced.^(b) Next to the stripping plate, come the power rammers, a device for dispensing with the hard work of ramming up the molds, which in plain or ordinary castings is a serious item in limiting production. At present four kinds of rammers are in use—friction, steam, compressed air, and hydraulic. Both the rammer and the stripping plate are combined and are used on molding machines.

Molding machines which withdraw the pattern from the mold, and thus displace the most skilful work of the hand molder, are not ordinarily used in foundries where a general run of work is done. Neither are they profitably employed in job work where different patterns are necessary with almost every new casting turned out. They are, however, used extensively in repetitive work. In 1901 there were at least twenty-five styles of molding machines in use in the United States. Some are designed and made by the firms using them, and are not on the market. By the use of machines it is claimed that unskilled laborers perform the task equivalent to that of skilled hand molders, and do even better work at less cost. The newer types of machines tend to become automatic. A molding machine put on the market in 1904 is almost completely automatic in its operation, merely requiring an attendant, who lifts the flask off and sets it to one side, blows the sand from the table by means of an air hose, and all is ready for renewing the process.^(c)

^a Report of the Industrial Commission, Vol. VII, p. 901.

^b In speaking of labor-saving machinery in the foundry, reference is not made to the improved facilities in the shape of power cranes, cupolas, etc., but rather to machinery designed to displace the skill and labor of the mechanic. This form of machinery is commonly known as molding machines.

^c Foundry, November, 1904, p. 144.

In the stove-molding trade molding machines have not yet become an important factor, owing to the machine-like movement and rapidity of the hand stove molders. The power rammer, or "squeezer" is about the only machine known in the stove foundry, and this has been in use in one form or another during the last thirty years.^(a)

It is generally admitted by both the manufacturers and the molders that the machines tend to displace the skill of hand molders. Their use promotes likewise a division of labor even in cases where a skilled hand molder must operate the machine. The hard work not requiring a molder's skill is now profitably relegated to unskilled hands. Thus the work of shaking out the flasks and taking out the castings, of shoveling over and tempering the sand, is done by laborers and helpers. The devices for economizing work in foundries result in a definite task being provided for each molder, at which he soon becomes expert and which greatly increases his output. Moreover, it is claimed by many foundry employers that by far the best results can be obtained by molding machines when they are operated by ordinary laborers.

The attitude of the Iron Molders' Union toward the molding machine prior to 1899 was that of ignoring it. No organized effort was made to keep the machines out of the foundry, but union molders refused to operate them. The machines were accordingly put in charge of common laborers, or men trained to work them. In the general convention of the Iron Molders' Union in 1899 the president, Mr. Martin Fox, forcibly pointed out the danger of this "laissez-faire" policy, and urged that the organization adopt measures to control the machine worker. In his report to the convention he said:

The advent of the labor-saving machine in the foundry was the signal for an outburst of ridicule and contempt; they were relegated at first to the unskilled laborer. To-day that laborer has become a serious rival of the mechanic in many subdivisions of our trade. * * * I strongly advise that our members agree to work on these machines and bring out their best possibilities, providing satisfactory arrangements can be made as to wages. The mistake was made at the beginning when our members refused to work on them, but we should be guided by our experience, and without further delay adopt such a policy as will give to our members the control of the machine and retain to them the trade which they have spent the best years of their lives in acquiring.^(b)

A few years later Mr. Fox again urged the union to take active measures for controlling the machine operators. He said:

The demand for skilled molders will not always be as great as it is to-day, and we can well conceive the time when the molder who would now refuse to take a job as a machine operator will be glad of

^a Iron Molders' Journal, Vol. 39, p. 105.

^b Proceedings of the Twenty-first Convention of the Iron Molders' Union, 1899, p. 11.

the opportunity. * * * It is manifestly to our interest to protect the machine operator in his wages and to assist him in securing a wage commensurate with his output and skill.^(a)

Mr. Fox pointed out to the convention that it is no longer the simplest kind of work that is made upon the molding machine. "Every year has seen an extension of its sphere, and a very high grade and difficult class of work is being successfully made with the use of the machine. As the work made on the molding machine improves in quality," he said, "it follows that a high degree of skill is required of the operator. Thus, in some instances, foundry men have found it more profitable to employ journeymen molders as machine operators upon the better class of work." Mr. Fox stated, however, that on the common run of work unskilled operators can easily become efficient specialized molders.

Altho no special provision was made for the admission of machine operators into the Iron Molders' Union by the convention of 1899, the executive board, in September, 1901, granted a charter to a local organization of machine molders. The following year the constitution of the organization was amended so that machine operators could be admitted.^(b)

The point of friction between the employers and the unions over the question of admitting machine operators is a question of wages, the iron molders adhering to the policy of maintaining a high standard of earnings among the machine operators in order to protect the hand molders.^(c) Regarding the necessity of this policy the *Iron Molders' Journal*, January, 1903, contains the following editorial comment:

We can well look forward to the time when there will not be the same demand for skilled molders that there is to-day, and, feeling as we do, that there is a class of molders who would make excellent machine operators, we are anxious to reserve for them, if possible, the opportunity to operate any machine.^(d)

Despite the endeavor of the Iron Molders' Union to control the machines, comparatively few molders are to-day operating molding machines. It is claimed by some employers that molders who work the machine do not always show a willingness to do justice to the

^a *Iron Molders' Journal*, Vol. 38, p. 617.

^b The present-qualifications for membership in the union read as follows: "Any molder serving an apprenticeship of four years at the trade in any of its branches or subdivisions or who has worked at the trade in any of its branches or subdivisions and is competent to command the general average of wages paid in the branch or subdivision with which he is identified, may be admitted as a member." This clause formerly read: "Any molder serving an apprenticeship of four years at the trade, or who has worked at the trade four years, and is competent to command a general average of wages, may be admitted," etc. See Constitution and Rules of the Iron Molders' Union, 1902, Art. VIII, section 1, and 1899, Art. VIII, section 1.

^c Report of the Industrial Commission, Vol. XIV, p. 150.

^d *Iron Molders' Journal*, Vol. 39, p. 14.

possibilities of the machine, or conscientiously assist in its development. The aversion of skilled hand molders to the operating of machines seems to be due to two principal causes: (1) The machines demand considerable physical exertion on the part of the molder, and (2) the work of operating the machine differs widely from that of hand molding. Moreover, owing to the lower piece-rate wages paid the machine operators it is impossible for them in some cases to earn the minimum rate of wages demanded by the union. Consequently the machines in a great number of foundries are now run by unskilled immigrant laborers.^(a)

PRINTING.

The printers have solved the problem of assuming jurisdiction over machine operators much more successfully than the iron molders. Previous to 1890 typesetting was essentially the same art as it was in the sixteenth century, tho other branches of the printing trade had become revolutionized by improved labor-saving machines. "Probably no other handicraft employing such a large number of persons [as that of type composition] underwent as little change during this period." During the last two decades, however, machine composition has been rapidly supplanting typesetting by hand. "The machine is still constantly encroaching on the field of the hand compositor, but the period of introduction may be properly considered as concluded with the year 1900. By that time, the craft had adjusted itself to the new conditions and the future trend of events could be foreseen with some clearness."^(b)

When the linotype was first introduced hand compositors were greatly alarmed over the possibility of the machines being operated with unskilled labor, but the technical character of the machine soon made it evident that the skilled hand compositor was required for its operation. "Every part of the hand compositor's knowledge is useful to the machine operator, except an acquaintance with the location of the case boxes, and instead the operator must learn the keyboard of the machine. In addition, the operator must think far more quickly. He must not only know the same things, but he must be able to use knowledge more rapidly."^(c)

Regarding the qualifications of a linotype operator Ex-President Donnelly, of the International Typographical Union, testified before the Industrial Commission as follows:

Q. Is the untrained man, not a practical printer, as capable of running a Mergenthaler linotype machine as a practical printer?—A. No; an untrained man who has not learned the printing trade is not

^a Eleventh Special Report of the Commissioner of Labor, pp. 167, 168.

^b Barnett, *The Introduction of the Linotype*, Yale Review, Vol. XIII, p. 251.

^c *Ibid.*, p. 273.

as capable of operating a machine, and does not make a competent printer or operator.

Q. Suppose he had been trained as a typewriter, would he be on a parity with the practical printers in running the machine?—A. Not at all. The typewriters to-day who could be considered competent to operate a machine, or ought in a short time to become competent to operate a printing machine, are men who receive higher wages as typewriters and stenographers than they would receive at the printing trade.^(a)

Undoubtedly the foremost cause tending to maintain a high grade of efficiency and skill among linotype operators is the higher speed which they must acquire. The machines are used mainly in offices where rapid composition is deemed the most important qualification of the compositor. The machine operator in following the copy must retain in his mind a considerable number of words in order to save time. It is estimated that a machine compositor who holds in his mind 2,000 words per hour must give closer mental application to his work than does the hand compositor.^(b) The higher speed attained on machines makes the work more exhausting than hand composition, and thus both mental retention and physical endurance are required of the operator. The International Typographical Union has at times approached the problem of seeking to keep the speed attained on machines within what it considers reasonable limits. On several occasions the conventions of the International Union sought to impose a maximum limit of output, but this policy failed in its application. In England, however, the practise prevails of limiting the output of operators on the linotype.^(c)

The International Typographical Union took no measures to oppose the machines when introduced. The union, however, immediately claimed jurisdiction over the operators.^(d) At the thirty-sixth annual session a resolution was adopted that "The International Typographical Union favors the recognition of such (typesetting) machines," and "recommends that subordinate unions * * * take speedy action looking to their recognition and regulation, endeavoring everywhere to secure their operation by union men upon a scale of wages which shall secure compensation equal to that paid hand compositors."^(e) At this time (1888) there were fewer than 100

^a Report of the Industrial Commission, Vol. VII, p. 276.

^b Eleventh Special Report of the Commissioner of Labor, p. 75.

^c The Printing Trades and the Crisis in British Industry, in the *Economic Journal*, Vol. XII, pp. 1-12; also Barnett, *The Introduction of the Linotype*, *Yale Review*, Vol. XIII, p. 268, and Eleventh Special Report of the Commissioner of Labor, pp. 53-56.

^d "Occasionally a small union refused for a time to make a scale for machines, but the International Union steadily discountenanced such a policy."—Barnett, *The Introduction of the Linotype*, *Yale Review*, Vol. XIII, p. 262.

^e Convention Proceedings, 1888, p. 181.

machines in operation in the United States and Canada, and the greater part of these were being run experimentally.^(a)

The success of the typographical union in carrying out this policy is undoubtedly due largely to the fact that the character of the work on the machine was such as required trained hand compositors. A knowledge of the construction of the machine, while useful, is not essential to the operator. Where machines are used in sufficient numbers, machinists known as machine tenders are usually employed to do the repairing and adjusting.

The most pronounced economic advantage accruing to the printers from the introduction of the machine has been the material reduction secured in the length of the working day. The work of the machine operators being much more exhausting and constant than that of the hand compositors, the union insisted that the former be granted a workday not exceeding eight hours. In newspapers offices, where the machines are principally in use, the workday in many cases is considerably less, not exceeding six hours.^(b)

PROHIBITION OF THE GRADING OF JOURNEYMEN.

The disintegration of a trade, caused either by machinery or a greater division of labor, as we have already shown, frequently leads to gradations of skill and efficiency among the workmen engaged therein, thus enabling a less efficient and lower-paid group of mechanics to constantly encroach upon the work of the higher grade. The lower grades of mechanics within the craft are consequently a serious detriment to the highly skilled classes. The employer, wherever it is profitable and possible to introduce a less skilled workman at a lower wage, will take this course regardless of the effect it will have upon the higher grade of workmen in the same craft. Hence, journeymen and workmen possessing the qualifications and training which enable them to perform the most difficult processes in a craft seek to protect themselves from the encroachment of the less skilled, either by requiring a high standard of efficiency of all who seek entrance to their trade or by prohibiting the grading of members of the trade. The methods of accomplishing this are (1) the enforcement of a minimum wage below which no journeyman is permitted to work; (2) the prohibition of the payment of differential wage rates.

The antagonism against the grading of journeymen is well illustrated in the history of the International Association of Machinists. The disintegration that has affected the trade of the machinist within

^a In 1904, according to the returns of the unions, 92.75 per cent of all machine employees were members of the International Typographical Union.

^b In 1904 there were 5,491 machines in use in newspaper offices and 1,638 in book and job offices. Barnett, *Introduction of the Linotype*, Yale Review, Vol. XIII, p. 264.

the last two decades has introduced, as we have already shown, a large number of relatively unskilled workmen, namely, the specialists and the handy men. The machinists endeavored to prevent these lower grades of mechanics from encroaching upon their work by enforcing a uniform wage scale in each locality. Their minimum wage, tho specially designed for the weaker and less skilled machinists, also affords protection to the more highly paid men, since employers, when they are forced to pay to less skilled mechanics as high a wage as is paid to those who possess higher qualifications, naturally choose the latter. It is the most highly skilled machinists who enforce a high minimum rate. In 1893 a strike was caused in Paducah by the proposed grading of machinists in a railway shop from \$2.50 to \$2.75 per day. The men objected to a superintendent having the power to say who should get \$2.50 and who should get \$2.75.^(a)

Again, in 1895 the *Machinists' Journal* uttered an editorial protest against the practise in the machine shops of the navy-yard of grading machinists and paying a different rate of wages to each grade. This protest was continued until the year 1900, when the convention of the American Federation of Labor "past a resolution instructing their council to try to change the Navy Department rules, so that machinists might be employed only under one class, which should receive the standard rate of wages."^(b)

Despite the efforts of the international association to prevent the grading of machinists, the rise of the specialists and the increasing subdivision of machinists' work are constantly making possible, and perhaps necessary, the division of mechanics into different grades and classes, with a different scale of wages for each class. "This was tacitly recognized by the International Association of Machinists, when in 1903 it changed its constitution so as to permit the admission into its ranks of specialists and others working in the machine shop who could not be described as machinists. Prior to 1903 the constitution admitted 'any workman performing the work of a machinist * * * provided he receives the minimum rate of wages paid in his locality;' but since 1903 this section has been so amended as to admit 'any person working in a machine shop and engaged in any manner with the making and repairing of machinery * * * provided he receives the minimum rate of wages of his class in his locality.'"^(c) It is thus by the enforcement of a minimum rate of wages for each grade of workmen that the machinists endeavor to control the conditions of entrance to their trade.

^a *Machinists' Monthly Journal*, Vol. V, p. 262. Also *Studies in American Trade Unionism*, edited by Hollander and Barnett, pp. 116-118.

^b *Studies in American Trade Unionism*, edited by Hollander and Barnett. See also Report of the Industrial Commission, Vol. XVII, pp. 221, 222.

^c *Studies in American Trade Unionism*, edited by Hollander and Barnett 118.

The Journeymen Stone Cutters' Association likewise for many years has discountenanced the grading of its members by employers. According to the by-laws of the association "any man shall be considered a practical stonecutter who can complete stonework true and perfect. This will include all kinds of stonework—plain and molded or carved. All stonework on which a mallet, mash hammer, and chisel are used, shoddy work and pitch-faced ashlar included, shall be considered as practical stonecutting, and shall be performed according to the rules and regulations of the branch under which it is done, provided it does not conflict with the constitution and by-laws of the general union."^(a)

Despite the dislike of the National Association of Stone Cutters to the grading of journeymen and the payment of a different rate of wage to each grade, this practise exists in several localities. "Where the grading system prevails there are usually three grades. All of the grades are composed of journeymen, the least experienced belonging to the third grade. Men in the second grade are expected to do more and better work than men in the third grade, and they get higher wages. Men in the first grade are expected to do more and better work than men in the second grade, and they get the highest wages. The grades are fixed by the union on application of the men. * * * Apprentices of unusual skill, after serving the four years of apprenticeship, not infrequently get second-grade cards."^(b)

In the foundry two classes of iron molders have always been distinguished, one known as bench molders on small castings, such as make up the different parts of a stove, and the other, known as floor molders, who work on large castings, as engine cylinders, machinery, etc. Small castings require less care and time for molding, tho stove molders and others working on small castings become very proficient, and work with great rapidity. In the molding of large castings skilled molders generally must be employed, but the greater part of the work of preparing the mold is done by helpers and handy men.^(c)

The different wage scales for floor molders and bench molders have generally prevailed in the industry, the policy of the Iron Molders' Union has been to equalize their earnings as far as possible.^(d) Bench molders, as a general rule, receive slightly more per day than floor molders, the wage scale for the former being \$3.25, whereas floor molders receive \$3 per day in foundries where the time-work system prevails.^(e)

^a Eleventh Special Report of the Commissioner of Labor, p. 342.

^b *Ibid.*, p. 343.

^c Thus the molding of an engine cylinder often requires as many as seven molders and an equal number of helpers, and takes a week for the completion of the process.

^d *Studies in American Trade Unionism*, edited by Hollander and Barnett, p. 240.

^e Piecework system of wage payment is not universal in the stove-molding branch of the industry.—Eleventh Special Report of the Commissioner of Labor, p. 150.

Ex-President Fox, of the Iron Molders' Union, in his report to the general convention of 1902, cautioned the delegates against insisting upon a uniform minimum rate for all grades of work. "In establishing minimum rates, especially when they approach the higher ranges, we should be careful to use wise discrimination when there is a class of work of very inferior grade included, and upon which molders are employed who are adapted for that class of work only. Circumstances over which we have no control are creating a class of molders capable of distinct classification from that of the all-round mechanic or jobbing molder."^a)

**PROHIBITION OF THE USE OF JOURNEYMEN'S TOOLS BY
LABORERS AND HELPERS.**

Rules and regulations prohibiting helpers and laborers from using journeymen's tools aim to prevent the "illegitimate man," who has not undergone the training or complied with the apprenticeship regulations required by the union, from surreptitiously entering the craft. They are enforced by most of the building trades, especially those in which a high standard of skill and efficiency is maintained. The sheet-metal workers, for example, do not permit laborers or helpers to use the journeyman's tools, or to assist any journeyman in doing mechanical work, excepting that of holding the "dolly."^b) A similar rule is enforced by the bricklayers, stonecutters, and by some of the local organizations of plumbers and steam fitters.

The Bricklayers and Masons' International Union in particular for many years has enforced rules to maintain the skill of the craft. One of these rules forbids mortar to be spread on a wall with any other instrument than a trowel, or by any other workman than a bricklayer. Altho these rules result in restricting the output, they are not enforced wholly for this purpose. There is a strong feeling among the bricklayers that using a trowel is the act of a skilled artizan, and that the use of a shovel in the place thereof by a laborer or unskilled mechanic is a distinct reduction of the dignity of the craft. The New York agreement of 1900 of the local Bricklayers and Masons' International Union and the employers' association contained the following clause:

That no laborers be allowed upon any wall or pier to temper or spread mortar, which shall be delivered in bulk, said mortar to be

^a Iron Molders' Journal, Vol. 38, p. 610. In his testimony before the Industrial Commission, Ex-President Fox made the statement that the introduction of machinery is practically going to "eliminate the highly skilled molder in a short time" from the agricultural and malleable iron work branches of the trade.—Report of the Industrial Commission, Vol. XIV, p. 148.

^b Agreement of the Amalgamated Sheet Metal Workers' Protective and Benevolent Association of New York, and the Employers' Association of Roofers and Sheet Workers of Greater New York and Adjacent Cities.—Report of the Industrial Commission, Vol. XVII, p. 394.

spread with a trowel by the bricklayers, who shall work by the hour only. Nor shall any member of the bricklayers' unions work for anyone not complying with all the rules and regulations herein agreed to.^(a)

Similar in effect to the above clause is the following, contained in the agreement between the Painters' District Council and the Contracting Painters of Chicago and Vicinity, March 1, 1904, to March 1, 1906:

SECTION 7. Said party of the first part agrees that they will not sublet to any of their employees or others, by contract or otherwise, any wall washing, painting, glazing, paper cleaning, or any character of hard-wood finishing, either on contracts or in factories, and under no circumstances shall they employ laborers or nonunion men to do any class of preparatory work in any branch.^(b)

Regarding similar rules of building trades in Great Britain, Charles Booth writes as follows:

Differentiation of the laborer's and the artizan's work is sharply defined. There are rigid rules in several of the trades emphasizing this. The use of the tools, for instance, of the skilled man by the laborer is frequently forbidden. In the provinces and in much of the suburban work in London this division is, however, less absolutely maintained, and it is here that the laborer is trained to become a handy man or is gradually qualified to claim work probably in another locality as a fully trained artizan.^(c)

The limitation of the number of helpers and handy men arises from the same motive as the prohibition of the use of the journeyman's tools. Since the helper receives a lower wage than the journeyman the employer usually wishes to have more helpers and fewer journeymen. The unions, on the other hand, in order to give as much employment to their own members as possible and to prevent too many helpers from gaining admission to the craft, in a number of cases fix the number of helpers a journeyman may have. Thus for many years the United Association of Journeymen Plumbers, etc., has complained that the employment of helpers results not only in an oversupply of plumbers, but in a decline of the standard of workmanship in their craft. Accordingly, in 1896, a movement was inaugurated, which was favored by a number of employers, to abolish the "helper." Separate locals have taken up the question and a number have succeeded altogether in eliminating the helper from the craft.^(d) Where it has been found impracticable to abolish the "helper" strict rules are enforced limiting the number that may

^a Report of the Industrial Commission, Vol. XVII, p. 380.

^b Bulletin of the Bureau of Labor, No. 55, pp. 1623, 1624.

^c Life and Labor of the People of London, Vol. V, p. 61.

^d The Lynn agreement of 1904 between contracting plumbers and the local plumbers' organization, contained a provision that no plumber should be allowed to work with helpers.—Bulletin of the Massachusetts Bureau of Statistics of Labor, No. 33, p. 255.

work with journeymen. The following clause in the Dubuque Steam Fitters' agreement, 1903, is typical of the provision relating to the restriction of helpers usually inserted in agreements of journeymen and employers in the plumbing and steam fitting trades:

The journeyman steam fitter may use a helper who has worked at the trade any length of time, but he can not use more than one helper or pipe hander. Helpers shall do no jobbing or other work except under the supervision of a journeyman steam fitter. Any previous offense shall bar him from being further employed in any union shop.^(a)

The electrical workers follow a similar policy, usually restricting the number of helpers to one for each journeyman employed.^(b)

In iron molding the question of the "helper" or handy man is not so serious as in the building trades. It is generally admitted that a force of helpers and laborers is required in the foundry, since much unskilled work is done in connection with molding. The work of shaking out the flasks, taking out the castings, and shoveling over and tempering the sand is done by laborers and helpers. The ratio of laborers to molders depends largely on the class of work, large castings requiring a larger number of helpers than small castings. In very small castings the aid of helpers is not always essential. The tendency in foundries is more and more to restrict molders to skilled work, while the ordinary work and minor processes, such as are enumerated above, not requiring the molder's skill, are relegated to unskilled hands. While the Iron Molders' Union is not directly opposed to this tendency of the greater division of labor, it seeks, nevertheless, to discourage the practise as far as practicable, on the ground that the helper tends to displace the apprentice. Thus, an editorial in the Iron Molders' Journal states that the unlimited employment of helpers and handy men "would create a class of men whose knowledge of the trade would be of a most limited nature, and who would become practically one-job men, and who, because of their mechanical inferiority, would be unfit for membership in our organization."^(c)

The question of employing unskilled laborers in the foundry was brought up for discussion at a conference of the Iron Molders' Union with the Stove Founders' National Defense Association in 1902, and the following clause adopted:

The general trend of industrial development is towards employing skilled labor, as far as practicable, at skilled work, and in conform-

^a Quoted in *Studies in American Trade Unionism*, edited by Hollander and Barnett, p. 303.

^b Agreement between the Electrical Contractors of Boston and Vicinity and Local No. 103 of the International Brotherhood of Electrical Workers of America.—*Bulletin of the Massachusetts Bureau of Labor* No. 34, p. 367.

^c *Iron Molders' Journal*, Vol. 40, p. 504.

ance with this tendency every effort should be made by the members of the Stove Founders' National Defense Association and the Iron Molders' Union of North America to enable the molder to give seven hours of service per day at molding, and to encourage the use of unskilled help to perform such work as sand cutting and work of like character, when the molder can be given a full day's work.^(a)

The effects of specialization and the varying degree of skill among molders of the present time is beginning to be felt by union iron molders. "It requires no demonstration," wrote the editor of the Iron Molders' Journal, "to convince us that the foundry industry in many of its features is being revolutionized. Specialization has already induced us to modify the policy of the Iron Molders' Union in important directions."^(b)

RULES AGAINST "LUMPING" OR SUBCONTRACTING AND TEAM WORK.

The opposition to subcontracting and team work arises from the fact that this method of employment leads to division of labor and a lowering of skill by inducing journeymen to employ as many helpers as possible. The interest of the journeyman when he works under contract is to turn out as great a product in as short a time and with the least cost to himself, regardless of the quality of his workmanship. He accordingly employs laborers and helpers to do the less skilled parts of the work. This increases the number of helpers in the trade, and consequently tends to increase the supply of journeymen and lower the standard of efficiency. As we have already seen, a helper is ever alert to take up the work of the journeyman with whom he works, and in this way gain admission to the trade.

A number of American labor organizations, during some period of their history, have been compelled to face the question of "lumping" or subcontracting and team work. The methods of dealing with the problem may be illustrated by reference to a few selected organizations.

An early instance of open opposition of an American trade union to the system of subcontracting and team work is found in the glass industry. In the first convention of glass-bottle blowers, held in Philadelphia in 1856, the principal question before the body was the unpopularity of the new method of work then being introduced, namely, the system of having each blower hire his own helper to assist him. This practise was considered an infringement upon the apprenticeship system. The convention accordingly past a law prohibiting blowers from employing helpers or anyone working for less than the standard rate of wages. Two years later (1858) another

^a Bulletin of the Bureau of Labor, No. 62, p. 193.

^b Iron Molders' Journal, Vol. 39, p. 250.

convention past the following resolution against the contract system:

That we will not work in any factory with anyone who has a molder or finisher or an assistant in making bottles or vials or for other purposes than gathering glass, except such assistant be a regular journeyman or apprentice to the business.^(a)

This regulation has prevailed in union glass-bottle factories throughout the United States ever since.

Similar opposition against the practise of journeymen hiring their own helpers developed early in the history of the Iron Molders' Union, when a number of strikes were inaugurated with the object of abolishing what was known as the "berkshire system." The principal feature of this system was that each journeyman molder had a helper or "buck" whom he paid from his earnings and who, after several years' experience, might enter the trade as a molder with a hired "buck" of his own. This practically amounted to a "contract system" of employment, and was regarded by the union as an encroachment upon the apprenticeship system. The Iron Molders' Union, after several years of opposition and conflict, succeeded in abolishing the "berkshire system" in union foundries throughout the country. In 1897, Ex-President Martin Fox, of the Iron Molders' Union, stated before the National Stove Founders' Association that the "berkshire system" had ceased in the United States, except in a few foundries. Mr. Hogan, the secretary of the stove founders' organization, made a similar statement in his testimony before the Industrial Commission, adding that in his opinion the employment of "berkshires" was injurious both to the molders and to the manufacturers, since it is best for both that every molder should be thoroly instructed in his business, an end accomplished only thru apprenticeship.^(b)

Hostility to "teamwork," or the practise of several persons working jointly upon the same product, each performing a separate operation, is of much the same character as the opposition to the practise of mechanics employing their own helpers and laborers. Both systems of employment have the same tendency to increase the subdivision of labor and thus lower the standard of skill and cause an oversupply of journeymen in the craft. For these reasons the members of the Journeymen Tailors' Union, despite the urging of their officers, have steadfastly refused to assume jurisdiction over the "special order" tailors who do custom work but who are employed in teams, each tailor making only part of a garment.^(c)

The opposition of the cigar makers to the system of teamwork

^a The Commoner and Glass Worker, October 18, 1902. p. 9.

^b Report of Industrial Commission, Vol. VII, p. 865.

^c See ante, pp. 704, 705.

known as "bunch and filler breaking," which came into vogue with the introduction of the mold, is likewise due to the fact that it lowers the standard of skill in the trade. With the use of the mold "bunch making" became a separate branch of the trade, requiring so little skill that it became an easy matter for employers to introduce cheap labor into the cigar-making industry.^(a) The molds which are devised for shaping the "filler" or "bunch" are made of wood, in two pieces, each pair of molds being carved out to admit 10 or 20 bunches. The "bunches" when placed in the molds are compressed in order to get the desired form. The bunch maker accordingly does not take so much pains to shape them in his hands as he would if the molds were not used, since the mold gives a uniform shape to the bunches without much preliminary manipulation. Even if he puts in too much or too little filler tobacco, the outside appearance is about the same, tho not infrequently the filler tobacco is so pressed together as to form hard places in the "bunches," and consequently the cigars will not draw or smoke well.

The Cigar Makers' International Union, as we have already shown, never prohibited its members from working under the "team system." Many of the members, however, rebelled against it and refused to work with "bunch makers." The International Union at first insisted that the "bunch makers" as well as the "rollers" should become members of the union.^(b) But owing to the fact that the "bunch makers" were mostly women and boys this rule was found impracticable of enforcement, and consequently was repealed. At present the team system prevails in practically all cigar factories where the cheaper grades of goods are produced.

A notable instance of nonopposition to the system of subcontracting or hiring of helpers by journeymen is found in the pottery industry, where this system of employment almost universally prevails. The journeymen "jiggermen," dish makers, and pressers pay their helpers from their earnings, being at once employees and employers. Each employs his own "batter out" (the boy who cuts off and prepares the clay), his mold runner, and his finisher.^(c) The pottery employees do not seriously object to the contract system, tho in July, 1902, the Brotherhood of Operative Potters made the proposition to the Western Manufacturers' Association that all contract labor in all branches of the trade should be abolished.^(d) The principal reason for the nonopposition in the pottery trade seems to be that an oversupply of skilled workmen is not caused thereby. The number of helpers

^a Cigar Makers' Journal, February 10, 1878.

^b See Constitution of the Cigar Makers' International Union, adopted 1887, Art. IV, sec. 1.

^c Eleventh Special Report of the Commissioner of Labor, pp. 667, 668.

^d *Ibid.*, p. 679.

employed by each journeyman is limited. To employ more than the average number would not be profitable, since in this way a larger product can not be turned out.^(a) Furthermore, not all helpers are capable of becoming journeymen, and consequently there is a constant "weeding out" of the incompetent and inefficient.

MODERN APPRENTICESHIP.

The various measures taken by workmen for the defense of their skill, such as have been enumerated above, tend to enable them either directly or indirectly to exercise some control over the conditions of entrance to their trades. It is a generally recognized principle of trade unions that without such control the maintenance of high standards of skill and large earning capacity is impossible. Pride in good workmanship characterizes the skilled journeyman, and differentiates him from the unskilled. "Every true mechanic takes deep interest in the general standard of workmanship for the entire craft, as well as pride in his own individual work. His feeling toward the incompetent workman is one of disapproval, to the extent of seeking to exclude him from the organization, unless prevented by other union policies."^(b) The rigid enforcement of apprenticeship laws when possible, the supervision of promotion within the craft, and the entrance examinations conducted either by the unions, by employers, or by both jointly, are therefore defended and upheld on the ground that higher standards of workmanship result therefrom.

The control of entrance to the trades is, however, becoming increasingly difficult. The extensive use of machinery in almost all trades and handicrafts, the minute subdivision of labor, and the consequent specialization of occupations, as has already been pointed out, have been gradually displacing the old forms of skill and workmanship, thus rendering necessary changes in the methods pursued by workmen in acquiring craft knowledge and in equipping themselves for industrial careers. The old system of apprenticeship, which at the beginning of the nineteenth century was the almost universal method of entering a trade or handicraft, is rapidly becoming unsuitable to modern industrial conditions, and the type of apprentice who spends the whole term of his apprenticeship in one employ, not only mastering one branch of a trade but the whole trade, has largely ceased to be. Few men now have the desire or the opportunity to teach an apprentice his trade, and even if this were not the case trades and occupations are subdivided into so many different branches, and so deputed to various machines, that it is sufficient for an apprentice to be put to one small division or form of work, and to remain there until he is

^a In some cases one helper serves two journeymen, who combine in employing him.

^b Studies in American Trade Unionism, edited by Hollander and Barnett, p. 267.

entered as a full-fledged mechanic, "stunted in all future stages of his growth by an unsuitable environment, a restricted outlook, and his too early planting out."^(a)

To fully comprehend the modern decadence of apprenticeship, a knowledge of the old system that prevailed previous to the nineteenth century is essential. At the time Adam Smith wrote the "Wealth of Nations" apprentices almost without exception were obliged to serve seven years. This period was regulated and enforced by law. In olden times the enforcement was under the supervision of the guilds, and the wares of the artizan could not be sold unless he had been regularly apprenticed.^(b) The apprentice generally began his training in his early boyhood and was indentured to a single employer during the whole period of apprenticeship. It was the custom to take an apprentice into the employer's family, with whom he lived in very close relations. In return for the training and sustenance he received, the whole labor of the apprentice belonged to his master. In some cases money, too, was given to the employer for teaching the boy his trade, and, if he could not give money, he gave time, or became bound for more than the usual number of years.^(c)

There is little doubt that the old apprenticeship system was largely a matter of exploitation on the part of the employer.^(d) The long term is explicable not only from the fact that trades were less subdivided and disintegrated and consequently more difficult to acquire than at present, but also because boys were indentured at a very early age, generally between 12 and 16 years.

A description of the old indenture system prevailing in the small industries (*petites industries*) of France, by a French writer, M. Olphe Gaillard, sheds some light upon the conditions under which the apprentice of former days worked. "It is not rare," writes M. Gaillard, "to meet with some small shops where apprentices work from thirteen to fourteen hours per day, with a Sunday half holiday, and are lodged in damp, ill-ventilated hovels or in cold barns, exposed to the weather."^(e) Added to the wretched physical environment was the

^a S. G. Rawson, *The Nation, the Apprentice, and the Polytechnic*, Contemporary Review, Vol. LXXX, p. 585.

^b Bolles, *Apprenticeship and Industrial Schools in Pennsylvania*, Annual Report of the Pennsylvania Bureau of Statistics, 1893, p. 3.

^c Adam Smith, *The Wealth of Nations* (Rogers edition), Vol. I (Book I, Chap. X), p. 107.

^d The keen discernment of Adam Smith pointed out that a seven years' term was excessive, and that the "longest apprenticeships can give no security against fraud." "In the common mechanic trades," he writes, "those (i. e., lessons) of a few days might certainly be sufficient. The dexterity of hand, indeed, even in common trades, can not be acquired without much practise and experience."—*Wealth of Nations*, Book I, Chap. X.

^e *La crise de l'apprentissage et les conditions du s jeunes ouvriers dans l'industrie moderne. La Science Sociale*, Vol.

lack of opportunity for mental culture. The apprentice of the old days did not come in constant contact with fellow-workmen in the same craft, and his long hours of fatiguing manual work did not permit intellectual recreations. Furthermore, as M. Olphe Gaillard points out, the small isolated shops in which apprentices worked were not so amenable to inspection or legislation as modern factories.^(a)

The gradual decadence of this ancient method of teaching boys the knowledge of a craft may be ascribed to various causes, all of which have their roots in the economic changes wrought by machine industry. In general they may be summed up as follows:

- (1) Production on a large scale, which destroys the personal relations between employer and employee or master and apprentice.
- (2) The extensive use of machinery and subdivision of labor.
- (3) The unwillingness of employers to take on apprentices.
- (4) The unwillingness of journeymen to instruct apprentices.
- (5) The dislike of boys for apprenticeship.

Each of these, in so far as they have affected changes in the methods of entrance to a trade, will be taken up in turn and discusst separately.

LARGE SCALE PRODUCTION OF MODERN INDUSTRY.

In olden times, as has already been remarked, the apprentice (who frequently entered the household of his master) was under the direct supervision and responsibility of the latter for his training and his moral conduct. Such close personal relations between apprentice and master, under the modern system of production on a large scale, is utterly impracticable, if not impossible. The employer is no longer responsible for the training and conduct of the apprentice, even in cases where the apprentice is duly indentured. Instead of the master directly supervising the training of the apprentice, this duty in modern workshops is relegated either to the foreman or to the journeymen, or it is entirely neglected. The speed and stress under which modern industry proceeds frequently renders the training of an "all-round" apprentice a financial loss to the employer, who can not permit his journeymen to be diverted from their labor in order to look after the apprentice's instruction. Consequently the apprentice, instead of being trained to do journeymen's work, is not uncommonly given odd jobs around the shop, acting as errand boy and handy man.^(b)

^a La crise de l'apprentissage et les conditions du travail des jeunes ouvriers dans l'industrie moderne. La Science Sociale, Vol. 34, p. 192.

^b This practise has proceeded so far that a comparatively new group of mechanics, the electrical workers, define an apprentice as one "who is employed to do errands, carry material to or on job, attend lockers, and assist journeymen in testing," but who may not be employed for any other purpose. See agreement drawn up by the New York Electrical Workers and employers (1900), in Report of the Industrial Commission, Vol. XVII

Even if the old form of apprenticeship were retained under modern conditions, and the employer were still held personally responsible for the training of the apprentice, in the great majority of trades and occupations the practical usefulness of such a system would be almost nil. In industries in which automatic or semiautomatic machines and a minute subdivision of processes have come into play, small opportunity is afforded a boy to acquire a thoro knowledge of all branches of a craft. Moreover, a mechanic under modern conditions finds it more profitable to confine himself to only one narrow branch of a trade, for he gains thereby as great a pecuniary advantage to himself as if time and effort were expended in the acquisition of the whole trade. Only a very few employees in the manufacturing industries possess a broad knowledge of the different branches and processes of a whole craft, and these are generally the class of men who direct the labor of others—the foremen and superintendents. But for the great bulk of the workmen, who perform the mechanical operations, little knowledge beyond the particular process in which each is separately engaged is required. The feeding of an automatic or a semiautomatic machine tool, or attending a turret lathe in the machine shop; the stitching of a small section of a garment in a clothing factory; the severing of the hide from a definite part of a beef carcass, and a number of other occupations of similar character, demand very little experience and can be done efficiently after a few weeks' instruction and practise. So minute are the subdivisions in such occupations that a man often does little more than a hundredth part of a trade. There are many who are called tailors, boot-makers, cabinetmakers, engineers, carpenters, and so forth, who in reality are acquainted with only a small section of the trade which they profess.

THE UNWILLINGNESS OF EMPLOYERS TO TAKE ON APPRENTICES.

Owing to this disintegration of trades neither employers nor employees are particularly desirous of having apprentices in the workshop. The expense of training apprentices, together with the losses frequently resulting from material spoiled by them, or the impossibility of marketing their product, leads employers to seek additional mechanics from laborers and helpers rather than train apprentices for this purpose. This condition is aggravated by the fact that the apprentices as well as the employees no longer remain steadily in one shop with the same employer, but readily move about from place to place, seeking higher wages and better conditions. However much the trade unions seek to enforce the indenturing of apprentices there is no security that they will serve out their term under one employer. In the glass-bottle manufacturing industry, where the union largely prevails, union employers

frequently complain that apprentices do not serve the five years' term but run away and seek employment in nonunion shops.^(a) The same complaint is made in other industries or trades in which the old system of apprenticeship is still maintained.

UNWILLINGNESS OF JOURNEYMEN TO TRAIN APPRENTICES.

If the modern apprentice is to receive instruction at all in the shop, it must come principally from the foremen and journeymen. But a journeyman naturally has no direct interest in the apprentice (unless, perchance, the apprentice happens to be a son or near relative). He rather regards the apprentice as a rival who may eventually "take the bread out of his mouth." The consequence is that the instruction of the apprentice is frequently neglected. Instead of being trained as an all-round and efficient mechanic, in most trades he is merely put to work at some simple occupation in which he readily becomes a proficient as well as a profitable employee.^(b) The apprentice thus tends to become a specialist. Separated both from the employer and from the journeymen little opportunity is afforded him for practise and instruction in all branches of a trade. In a number of industries which have been badly disintegrated, it is almost impossible under normal conditions for the apprentice to receive a regular course of instruction.

No better illustration is afforded of this condition than the recent changes in the machinist trades. In modern machine shops (except where employers conduct special schools for apprentices), the tendency toward specialization renders the training of apprentices both expensive to employers and troublesome to the journeyman; hence, except in extraordinary cases, very few apprentices are found in the machine shops, and these do not become skilled in the higher grades of work. Boys in the shop are taught to operate one machine and none other. They thus become "specialists" or machine tenders rather than machinists. Moreover, since modern machine tools in a large number of cases require little skill or exertion to operate, a boy with ordinary intelligence after a few months' practise can earn the wages of a competent machinist. Where skill is required in adjusting material to the tools, in a large number of machine shops skilled machinists do the work, while handy men and attendants take charge of the machines, i. e., handle the levers and

^a The National Glass Budget, May 11, 1901. Apprentices that are registered with the trade unions are universally required to serve out their term with one employer, provided the latter desires it. To keep track of the boys who leave their employers before finishing their term of service the unions have enacted rigid laws with reference to runaway apprentices.

^b Joseph Horner, *The Training of Workmen*, Cassier's Magazine, Vol. XX, p. 110.

watch the operation of the machine. This practise increases the proportion of unskilled to skilled mechanics in the machine shops.^(a)

In machine shops of the present day apprentices or beginners may be separated into five different classes: (1) Those who are taught the branches of lathe work, vise work, plane work, gear cutting and milling—the “all-round” machinist; (2) those who are taught lathe work and vise work only; (3) those who are taught lathe work only, or vise work only, or plane work only; (4) the handy men—second-rate machinists, and (5) the specialists who are simply taught to operate or attend a single machine. The tendency is to restrict apprentices more and more to the last two grades. It is thus difficult for employers to procure skilled machinists and practically impossible for the unions to enforce a definite term of apprenticeship. Consequently a crying demand for skilled machinists and a widespread complaint of the lack of competent and thoroly efficient mechanics has arisen on the part of employers. Several of the large firms thruout the country have taken steps to provide themselves with skilled mechanics. Schools for the training of apprentices have been started in the shops of these firms, wherein thoro instruction in all branches of machinists’ work is afforded the pupils.^(b)

The trend toward the “specialization” of apprentices prevails to some extent in the printing trade, the constant enlargement of printing establishments making this specialization possible. Practically in only small shops and country newspaper offices do apprentices have the opportunity of receiving an all-round training. Compositors are restricted in a great many offices to one line of work, such as display, advertising, straight matter, job work, and so forth. Consequently, as among machinists, there is little opportunity for journeymen to attend to the needs of apprentices. Master printers must accordingly rely chiefly upon the small shops for their supply of thoroly trained journeymen. The same situation prevails in the British printing industry, where compositors are trained in the non-union printing offices in the small towns, and when proficient they flock to the large cities and acquire membership in the unions.^(c)

Multiplication of occupations and specialization of mechanics are constantly going on in much of the work relating to the construction

^a Owing to the practise of placing apprentices upon specialized work, the International Association of Machinists lately inaugurated a policy of organizing the apprentices into separate locals known as apprentice lodges. Eleven of these lodges were organized in 1904.

^b Such schools are found at the Baldwin Locomotive Works, the Brown and Sharpe Manufacturing Company, the Chicago and Northwestern Railway, and the General Electric Company.

^c Webb, *Industrial Democracy*, new edition, 1902, p. 467

of buildings,^(a) despite the fact that the building trades have been affected less by machinery and mechanical contrivances than the manufacturing industries. The erection of large structures is controlled in the main by corporations who take contracts in all large cities. These corporations find it profitable to employ mechanics who are specialists in certain branches of their respective trades, and shift them about from locality to locality, wherever they have need of them. Men of this class find little time or opportunity to instruct boys in the processes of the trade. In fact, no personal tie or intimate relation exists between the beginner and those who have charge of the work, for, except in small towns, the apprentice is not generally known to the foreman or journeyman. The apprentice, moreover, is frequently physically in the way on a large building where all work must be done in order and on time, for no large contractor desires boy labor merely because it can be secured at a lower wage. "The time consumed in teaching the trade to beginners would cause a delay in work, more expensive than the sum saved on wages."^(b) Besides, much of the work done on buildings is of such a heavy character that it can not be effectually done by boys, and consequently adult laborers or helpers are more profitably employed in their stead.

DISLIKE OF BOYS FOR APPRENTICESHIP.

If the apprenticeship system is undesirable to the employers and unsatisfactory to the journeymen, it is even more distasteful to young people desirous of entering upon an industrial career, for boys ordinarily prefer the casual system of learning a trade rather than thru apprenticeship. Various causes have combined to produce this effect, the most important of which are: (1) The long and excessive term of apprenticeship with one employer and the low wages paid to apprentices, especially during the early period of their training; (2) the increasing age at which young people now begin their industrial career, and (3) the possibility of acquiring a craft knowledge as a common laborer.

The long terms of apprenticeship enforced both by employers and trade unions have already been referred to. Boys, wearying of the discipline and restrictions under which they are placed, frequently either refrain from becoming apprentices or when apprenticed leave their employers and apply for positions in unskilled trades.^(c) Indenturing does not necessarily hinder desertion of the master by the apprentice, since very few employers care to take the trouble of legally enforcing an unwilling apprentice to serve out his full term. An appeal to law in such a case is as exceptional an occurrence nowadays as is the payment of wages in kind.

^a Booth, *Life and Labor of the People of London*, Vol. V, p. 100; also *Studies in American Trade Unionism*, edited by Hollander and Barnett, p. 285.

^b *Studies in American Trade Unionism*, edited by Hollander and Barnett, p. 286.

^c Bolles, *Apprenticeship and Industrial Schools in Pennsylvania*, p. 13.

The difficulty of obtaining apprentices in occupations which require a long training for proficiency is well brought out in the custom tailoring trade. The Journeymen Tailors' Union has been very liberal in its apprenticeship regulations, permitting each journeyman to have one apprentice. The returns of locals in 1903 show that there were only 625 apprentices reported, whereas the membership of the union was about 14,500.^(a) As stated by the president of the Journeymen Tailors' Union in his report for 1905, "The world is now moving too rapidly, industrially speaking at least, for anyone to take six, seven, or eight years to learn a trade. * * * The most careful inquiry and investigation has demonstrated that there are but few apprentices to the tailoring trade in the world to-day."^(b)

In a number of trades the great profit of apprentices to employers, where the latter seek to maintain the apprenticeship system, is the low wages paid the apprentice. Commenting upon this condition an editorial in the Plumbers', Gas and Steam Fitters' Official Journal, February, 1906, stated that it is a visionary idea that a boy would follow up a business at the rate of pay stipulated for apprentices in the plumbers' trade. The following is about the usual rate of pay which, with its regular increases, is laid down for apprentices:

	Per day.
For the first six months.....	\$0.50
For the second six months.....	.75
For the second year.....	1.00
For the third year.....	1.25
For the fourth year.....	1.50
For the first six months of the fifth year.....	2.50
For the last six months of the fifth year.....	3.00

"How many practical men," continues the editorial in the Plumbers' Journal, "will admit that a man will work for \$1.50 a day when he has been at the trade four years? Imagine a skilled mechanic with four years' experience working at a job at \$1.50 per day, and his digger, perhaps, unable to speak the English language, receiving \$1.75 or \$2, and sometimes more. How long would an ambitious young man of 18 or 20 years of age work as a mechanic at anything less than \$2 per day? * * * There is no law in any city or State in this United States and Canada that will permit an employer or a boy's parents to bind him out and compel the boy to remain at work where he is assigned, because the laws concerning the binding of apprentices have been abolished about seventy-five years."^(c)

The low wages received by apprentices is further exemplified in the pottery industry. In the most important trades comprised therein apprentices work at a discount from the prevailing journeyman's

^a The Tailor, August, 1903, p. 5.

^b Ibid., February, 1905, p. 6.

^c Gas and Steam Fitters' Official Journal, February, 1906, pp. 1, 2.

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the same were turned out by both apprentice and the apprentice receives a rate of wage which varies from discount off the regular for the first six months of apprenticeship, 25 per cent off for the last year. This discount, together with the low output of a beginner, reduces the earnings of apprentices to a very low average, and discourages intelligent and ambitious boys from becoming skilled workers in the industry.^(a)

In the printing trade a similar practise of paying apprentices at low rates of the journeymen's scale prevails in some localities. Under the Cincinnati agreement of local Typographical Union No. 3 the scale for apprentices, which is typical of apprenticeship wages prevailing in localities where it is regulated by agreement, is graded as follows:

First year, one-fourth of journeyman's wages.
Second year, one-third of journeyman's wages.
Third year, one-half of journeyman's wages.
Fourth year, two-thirds of journeyman's wages.

By the fourth year of apprenticeship the printer's apprentice is generally known as a "two-thirder," because of the fact that he is entitled to two-thirds of the prevailing scale of wages.

A still lower apprentice scale of wages than the above prevails in some localities of the Machinists. Thus the agreement entered into between the Erie Railroad Company and the International Association of Machinists, commencing July 1, 1905, contained the following wage scale for apprentices:

	Per hour.
First year.....	\$0.08
Second year.....	.10
Third year.....	.12
Fourth year.....	.14

After the fourth year the apprentice is classed as a journeyman.^(b)

One reason why the small earnings of apprentices tend to discourage boys from acquiring a skilled trade by serving an apprenticeship is the tendency to increase the age at which young people begin an industrial career. We have seen that under the old apprenticeship system boys begin to learn a trade when quite young, 14 years being the usual age at which a boy was indentured. The higher standards of elementary education and compulsory school attendance laws, together with child-labor legislation, have raised the minimum age of an apprentice to 16 years and in some cases even to 18 years. Most

^a An apprentice presser, for example, serves five years before becoming a journeyman, and is paid at the rate of 33 1/3 per cent discount off the scale in his first year, 25 per cent off the second year, 20 per cent off the third year, 15 per cent off the fourth year, and 10 per cent off the fifth year. After five years he receives the journeyman's scale.

^b See Eleventh Special Report of the Commissioner of Labor, p. 670.

Machinists' Monthly Journal, August, 1905, Vol. XVII, p. 68A.

of the trade unions have rules which prohibit the taking of apprentices before the age of 16, while several place the minimum at 18.^(a) This increase of the age of apprenticeship in many industries arises also from the fact that the work (particularly in the building and metal trades) is of such a heavy, dangerous, or intense character that it can not be readily performed by youths.

The constant tendency toward specialization and simplification of the processes within a trade frequently enables a boy or an ordinary laborer to acquire a working knowledge of a craft without undergoing a regular training. If a general inquiry were made among the mechanics of the different trades as to how they acquired their craft knowledge, the answer in a large number of cases would be, "I merely picked it up." Even in the building trades, in which the apprenticeship system prevails more largely than in other industries, the casual acquisition of craft knowledge is gradually replacing the regular system of apprenticeship. In an investigation of 124 cases in London in 1893, conducted by Mr. Charles Booth,^(b) 118 gave the following particulars regarding the way in which the craft was learned:

METHOD BY WHICH 118 MECHANICS IN BUILDING INDUSTRY LEARNED THEIR TRADES, LONDON, 1893.

Trade.	Number appren- ticed.	Taught by father.	Picked up knowl- edge.
Masons.....	3	2	.....
Bricklayers.....	16	4	4
Carpenters and joiners.....	26	4	1
Plasterers.....	1	7	4
Painters.....	4	3	6
Plumbers.....	1	4	1
Smiths and fitters.....	2	.....	2
Other branches.....	2	1	9
Laborers.....	.....	2	9
All trades.....	55	27	36

^a An investigation conducted by the Wisconsin bureau of labor and industrial statistics in 1889 showed that of 325 workmen in the building trades, 101, or 19 per cent, began to work at their trades after having reached the age of 25 years. Of these 48 were native born and 53 foreign born. The number beginning to work at their trades before 18 years of age were 181, or 34 per cent, 16 per cent being native born and 18 per cent foreign born.—Fourth Biennial Report of the (Wisconsin) Commissioner of Labor and Industrial Statistics, pp. 38, 39.

^b Charles Booth, *Life and Labor of the People of London*, Vol. V, pp. 103, 104.

In 93 of the above cases particular attention has been given as to the locality in which the trade was learned, showing:

LOCALITY IN WHICH 93 MECHANICS IN BUILDING INDUSTRY LEARNED THEIR TRADES, LONDON, 1881.

	In London.	In provinces.
Apprenticed.....	26	2
Learned from father.....	19	7
Picked up.....	17	83
Total.....	53	90

* Including 1 in America.

In large cities in the United States, where the building trades are less efficiently organized than in Great Britain, the number of workmen who acquire craft knowledge by other means than apprenticeship or the regular form of promotion is undoubtedly relatively more than shown in the above table.^(a) In the plumbing trades particularly many become journeymen without being thoroly trained. An editorial in the official journal of the Plumbers, February, 1906, complains:

There will always be cities or towns enough that are unorganized that will turn out helpers and apprentices in large enough number to supply the demand. And then again, and on the other hand, there will always be some cities where the employers and journeymen will not be judicious enough to regulate the number to be employed as they should be. The scab shop and the nonassociation employers will also continue to manufacture plumbers at a compound rate, and then again, we may be years convincing some old-fashioned and stubborn cities that the trade is overrun by an extensive number of men. * * * The journeyman is also responsible, to a great extent, for this condition of affairs, because in years past, when plumbing was considered more of an art than it is to-day and the wages were comparatively higher, the journeyman, to use the language of the street, "got the swelled head," and thought he must have a boy to carry his overalls around and to shine his tools for him, and walk on the other side of the street with his tool bag lest society should see him with a dirty carpet sack on his shoulder.^(b)

^a The Relation of Labor Organizations to the American Boy and to Trade Instruction, by E. W. Bemis, in *Annals of the American Academy of Political and Social Science*, September, 1894, Vol. V, p. 218. In the Massachusetts census for 1885, the fact was brought out that in none of the building trades was there one-half and in most cases not one-fourth as many apprentices as the rules of the trade unions would allow. In Wisconsin in 1888, according to the Fourth Biennial Report of the Commissioner of Labor and Industrial Statistics (p. 68), there were only 1 apprentice to every 13 journeymen among masons; 1 to every 12 among carpenters; 1 to every 15 among painters, while there were 3 apprentices to every 4 journeymen among the plumbers.

^b *Plumbers, Gas and Steam Fitters' Official Journal*, February, 1906, p. 2.

In view of the fact that the trend of industrial development is continually causing a relaxation of apprenticeship regulations, it is surprising to see the number of trades in which apprenticeship still forms one of the principal and most important methods of entrance. But, as we have already shown, the apprenticeship system of to-day is an entirely different thing from what it was a century ago. In former days the apprentice was usually a member of the employer's household; in most trades at the present time he is merely a boy working with a number of journeymen, doing a similar line of work. Tho a few trade organizations seek to uphold the system of indenturing, an indentured apprentice is a rarity.^(a) Moreover, it must be remembered that a considerable number of the trade unions which retain the traditional apprenticeship system are not successful in enforcing them. Thus, the constitution of the Cigar Makers' International Union provides that all persons learning cigar making or packing must serve a three years' apprenticeship, and that no shop should be granted the label that does not enforce this provision. This provision, however, is admittedly a dead letter, and the union only encourages compliance with the apprenticeship laws in such localities where it is exceptionally strong.^(b) In the printing trade, likewise, both in the United States and in Great Britain, compliance with the apprentice regulations is not universally insisted upon, and the union members are largely recruited from nonunion printers who have acquired their trade without undergoing an apprenticeship.^(c)

But probably the best evidence of the nugatory character of union apprenticeship regulations is the relatively small number of strikes conducted to enforce these regulations. This is shown in the accompanying table of the causes of strikes by leading trades.

^a Studies in American Trade Unionism, edited by Hollander and Barnett, p. 269. Even in France, where the system of small industries prevails more largely than in the United States, indenturing is the exception rather than the rule. An investigation conducted by the French Government in 1901 showed that out of 2,000 apprentices in the printing trade only 41 were indentured. The duration of the indenture was from two to five years. See *Journal de la Société de Statistique de Paris*, Vol. 44, p. 85.

^b Testimony of Ex-President Adolph Strasser, of the Cigar Makers' International Union, Report of the Industrial Commission, Vol. VII, p. 265.

^c Webb, *Industrial Democracy*, new edition, 1902, pp. 464, 465; also Bemis, *The Relation of Labor Organizations to the American Boy and to Trade Instruction*, *Annals of American Academy of Political and Social Science*, September, 1894, Vol. V, p. 217.

PERCENTAGE OF STRIKES DUE TO SPECIFIED GROUPS OF CAUSES, BY LEADING INDUSTRIES, 1887-1894. (a)

Causes.	Building trades.	Stone quarrying and cutting.	Glass trades.	Printing trades.	Tobacco and cigar manufacture.	Coal mining and coke manufacture.	Clothing manufacture.	Cotton and woolen industry.	Boot and shoe industry.
For increased wages or union scale.....	37.7	31.6	27.6	46.3	57.3	52.9	44.6	39.1	32.1
Against decrease of wages.....	4.0	2.9	4.5	5.3	11.1	24.8	12.4	23.7	24.6
Hours, overtime, holidays.....	27.6	31.2	21.4	20.2	.1	2.3	12.8	4.1	.15
Time and methods of payment, fines, etc.....	2.4	9.6	8.2	3.9	.4	8.1	4.9	8.8	4.1
For recognition of union.....	8.8	.1	.8	1.2	.2	.7	5.0	.2	4.6
In sympathy with strikers elsewhere.....	7.2	5.3	.4	1.4	23.7	7.2	1.9	.....	4.2
Against nonunion and other obnoxious men, foremen, etc.....	7.7	14.4	7.8	8.7	2.4	1.4	4.9	4.3	10.8
For employment or reinstatement of men, foremen, etc.....	.3	.4	3.7	4.3	.7	1.8	2.3	6.6	6.1
Regarding apprentices.....	1.1	1.7	12.4	2.0	.8	.....	.1	.....	.5
Against introduction of machinery.....	.1	.....	.....	.02	.8	.....	.2	.6	3.9
Miscellaneous.....	3.1	2.8	13.2	6.7	2.5	.8	10.9	12.6	9.0
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

a Report of the Industrial Commission, Vol. XVII, p. 656.

It will be seen from this table that strikes regarding apprentices are most frequent in the strongly organized trades, tho even in these relatively few strikes result therefrom. The glass industry naturally has the largest percentage of strikes caused by violation or enforcement of apprenticeship regulations. The glass trades from early times have been very strongly organized, and on account of the high skill required a long apprenticeship is necessary. The trade unions have endeavored, with very considerable success, to enforce strict limitations concerning the number of apprentices, and hence we find that in 12.4 per cent of the total number of strikes in the glass industry from 1887 to 1894 the cause was connected with apprenticeship. Organizations whose craft have undergone a disintegration, causing a decline in skill, can do little to prevent any person from entering the trade at any time he sees fit. Thus in the Cigar Makers' International Union from 1885 to 1901 the ratio of strikes conducted to enforce apprenticeship rules to the total number is comparatively insignificant, as shown by the following table, compiled from the reports of the international president:

PERCENT OF STRIKES IN THE CIGAR MAKERS' INTERNATIONAL UNION TO ENFORCE APPRENTICESHIP RULES, 1885 TO 1901.

Period.	Total number of strikes.	Strikes to enforce apprenticeship rules.	Per cent of total.
1885-1887.....	167	7	4.2
1887-1889.....	160	11	6.9
1889-1891.....	254	8	3.1
1891-1893.....	275	2	0.7
1893-1896.....	290	20	6.9
1896-1901.....	495	18	3.6

Another evidence of the nonenforcement of apprenticeship regulations is the noticeable absence of provisions relating to apprentices in many trade and industrial agreements. Except in the old handicrafts, which have suffered little deterioration from machinery or new processes, together with the building, the metal, and the printing trades, no provisions regarding entrance to the trade are usually contained in the agreements between employers and employees. Tho such provisions are invariably found in the trade agreements of the glass and pottery trades, granite cutters, pattern makers and iron molders, and a few other metal trades, they are usually absent in the agreements of wage scales entered into by the Boot and Shoe Workers' Union, the Amalgamated Meat Cutters and Butcher Workmen, the textile organizations, and the iron, steel, and tin workers.^(a)

The usual term of apprenticeship prevailing in American unions is from three to four years, tho some organizations enforce a five-years' term. Employers as a class do not object to the length of apprenticeship fixt by the trade unions. In fact, in a few industries (i. e., the glass industry) it is the employers, and not the unions, which insist upon a long term of apprenticeship. The controversy regarding apprentices is generally over the limitation of the number of apprentices, a question with which our study is not directly concerned.

The following table gives in condensed form the period of apprenticeship required by American national and international trade unions and the minimum and maximum ages at which the apprenticeship may be begun when stated in the constitutions and rules of the organizations:

PERIOD OF APPRENTICESHIP REQUIRED BY AMERICAN NATIONAL AND INTERNATIONAL TRADE UNIONS, AND AGE AT WHICH APPRENTICESHIP MAY BE BEGUN.

Union.	Term of apprenticeship (years).	Age (years) when apprenticeship may be begun.	
		Minimum.	Maximum.
International Brotherhood of Blacksmiths.....	b 4	16	21
Bricklayers' and Masons' International Union.....	3	(c)	(c)
Brotherhood of Boiler Makers and Iron Shipbuilders.....	3	18	21
Brotherhood of Bookbinders.....	4	16	18
United Brotherhood of Carpenters and Joiners.....	4	16	21
Cigar Makers' International Union.....	b 3	(c)	(c)
Glass Bottle Blowers' Association.....	d 5	(c)	(c)
Journeymen Stone Cutters' Association.....	4	15	18
United Hatters of North America.....	3	(c)	21
Metal Polishers, Buffers, Platers, Brass Molders, and Brass Workers' Union.....	3		
Sheet Metal Workers' International Association.....	e 3		
Iron Molders' Union.....	4	16	
Pattern Makers' League.....	4		
International Typographical Union.....	4	16	20

^a The unions which adhere most strictly to the apprenticeship regulations are moderately successful in enforcing them. Among these are the Pattern Makers' League of North America, the Bricklayers' and Masons' International Union of America, the National Brotherhood of Operative Potters, and the Table Knife Grinders' National Union of the United States.

^b Minimum.

^c Not reported.

^d For machine operators, three years.

^e Period recommended for adoption by local unions.

The traditional system of apprenticeship, despite its inadaptability to modern industrial conditions, is not without its advantages. Even in the manufacturing trades, which are so unfavorable to the acquisition of an all-round knowledge of a craft, the apprenticeship system is frequently beneficial to both the employer and the mechanic. In the first place, the apprenticeship system assures the employer a supply of trained workmen, possessing intellectual and manual efficiency. A mechanic who has acquired his craft knowledge by a process of difficult training possesses a pride of workmanship which insures greater interest and a better exercise of judgment and skill. Employers in different trades recognize this fact, and occasionally endeavor to reestablish the old apprenticeship system. Several of the large engineering works have instituted courses of instruction for apprentices in their shops, while in the printing trades, the textile industry, and in a number of the building trades, employers in different localities have likewise taken steps to train boys as efficient workmen in their respective trades.

Undoubtedly the greatest advantage of the apprenticeship system accrues to the mechanic himself. By receiving an all-round training he is thereby enabled to work in all branches of the craft, and thus attains greater adaptability to changing employments. Much of the distress caused by the changes that are constantly occurring within a trade can be thus obviated. Furthermore, a thoro training in all branches of a craft divorces the worker from his dependence upon a single machine or a single mechanical process for a livelihood. It gives him a wider intellectual and manual outlook, by means of which he is more readily able to turn from one process to another if the change in trade or fashion should render such a step necessary. He thus becomes more independent, and is better equipped to take his part in the struggle for existence.

SUBSTITUTES FOR APPRENTICESHIP.

THE QUASI APPRENTICESHIP SYSTEM IN MANUFACTURING INDUSTRIES.

In a number of manufacturing industries where machines have replaced the skill of the handicraftsman a method of training is in vogue which is similar to apprenticeship, inasmuch as a person wishing to become a worker undergoes a preliminary course of instruction. The training, however, differs from that of the old apprenticeship system in that, owing to the simplicity of the operation performed, only a few months are usually required for proficiency. Consequently no age qualification for learners prevails. Adults as well as young people starting out to earn a livelihood are admitted as learners.

This degenerate or "quasi apprenticeship" system is the usual *method by which a garment maker enters upon his occupation.* The

effect of the use of machinery and of the minute subdivision of labor in the clothing industry, as we have already shown, has been the employment of unskilled immigrants as operatives in place of the old-time skilled journeymen tailors. These immigrants ordinarily begin as learners in the small shops of the contractors, where each is taught a single branch of the trade as a reward for his labor, and frequently in return for a stipulated fee. As the learner becomes proficient and is able to turn out a perfect product with moderate rapidity, he generally leaves the employ of the contractor and seeks employment in the factories or larger shops. Since the function of the contractor is that of an employer as well as teacher, his object is to get as much work out of the learner as possible. To accomplish this the learner is confined to a particular kind of work at which proficiency may readily be acquired after a few weeks of practise. The immigrant thus becomes either an operator on pants, a baster or presser on coats, a sleeve maker, a shoulder padder, or a worker in any other of the numerous occupations involved in the making of a garment.^a

The common methods of entrance to the occupations of cigar making, boot and shoe making, machine woodworking, and the textile trades are very similar to that prevailing in the clothing industry. The skilled hand cigar makers may require several years' training to become thoroly proficient, cigar "rollers" using the "suction table" can readily earn the average wages after two or three months' practise, and "bunch makers" can become proficient in even less time. A large manufacturing firm in New York City, employing a thousand female cigar makers working with the aid of suction tables, maintains a learners' department, where those wishing to learn cigar rolling or "bunch" making are paid a minimum wage of \$3 per week during the time they are taught these occupations. Many of the learners in this department, after a few weeks' instruction, can earn the average wage per week, working at piecework rates.

Hand cigar makers usually acquire their craft knowledge in the shops of the small manufacturers employing immigrant labor or in the country towns. An immigrant wishing to become a cigar maker frequently pays a journeyman or a small manufacturer a stipulated sum to teach him the trade. Beginners, after three or four weeks, can learn to make bunches or to roll cigars, and within three months they can do both operations sufficiently well to have their product

^a Several of the occupations in garment making, however, require more training for proficiency than that which is furnished in the contractors' shops. The pocket makers, for example, being among the most skilful men of the trade, are able to earn \$30 and \$35 per week in the busy season. They require considerable experience and training before they become proficient in their line of work. The coat presser is likewise a skilled mechanic, and receives a higher average of wages than most of the other workers.

placed on the market. Beginners, of course, are employed on the cheapest grades of cigars, since considerable tobacco is spoiled by them while learning.^(a)

The method of entrance to the textile trades is even simpler than that of cigar making or garment making. With the recent improvements in weaving and spinning machinery has come a noticeable decline in the quality and skill of the operatives. Modern automatic looms for weaving are so easily managed that a case is mentioned where a totally inexperienced girl learned to run 14 looms within a week.^(b) As she becomes more experienced the number of looms placed in charge of the learner can be increased until the maximum is reached.^(c) It usually requires one year for an absolutely green male hand to become competent to take charge of the maximum number of looms per weaver in the mill and to be thoroly educated into the work of efficient weaving, but he may be safely given charge of as many as 15 looms after a few weeks' practise.

In the occupation of ring spinning the time required for learning is even shorter than that of weaving. A girl can begin to earn the average rate of wages after two or three weeks' training.^(d)

HELPER SYSTEM OF ENTRANCE TO A TRADE.

The "helper system" of promotion or the progression within a trade is frequently a substitute for apprenticeship. The laborer known as the "helper" must not be confounded with the apprentice. The latter is generally a youth undergoing a training to become a journeyman. He uses a journeyman's tools and is in most trades permitted to do a journeyman's work. The helper, however, except in a very few trades, receives no instruction and is restricted to certain kinds of unskilled employment. As we have already pointed out, he is not allowed to use the journeyman's tools, and in many trades is not under the jurisdiction of the journeyman's union. As his name implies he helps the journeyman, performing for the latter such services as do not require craft proficiency. By reason of his opportunity to watch the work of the journeyman the "helper," or "handy man," is frequently enabled to acquire the craft knowledge of the latter and eventually perform the same services.

A further distinguishing feature of the "helper system" of promotion to a trade is the absence, in most cases, of a definite term of

^a Eleventh Special Report of the Commissioner of Labor, p. 580.

^b Young, *American Cotton Industry*, p. 62.

^c An evidence of the fact that little training is required in the cotton-weaving industry is that the weavers' unions have no rules regarding qualification for membership. Mr. Thos. F. Connolly, secretary of the Lowell Weavers' Union, testified before the Industrial Commission that his union is for the operative, irrespective of skill.—Report of the Industrial Commission, Vol. VII, p. 347.

^d *Report of the Industrial Commission* Vol. XV, p. 420.

training or experience required for admission to the trade. Helpers are found largely in occupations in which the work is of such heavy character that a greater physical strength is demanded than is ordinarily possessed by youths, hence they are frequently men of mature age. In several of the building trades, such, for example, as tile laying, the helper must carry water, brick, and tiles, and do other heavy work.

The helper system also predominates over apprenticeship in occupations where experience rather than training is essential for proficiency. Under modern methods of running press rooms, for example, a number of years of practical work on small presses is essential for one desiring to take charge of a rotary press and to perform the higher grades of work. Accordingly the young men who should be rated as apprentices in a press room are feeders and job pressmen, who attend the small presses or who assist in the operation of large cylinder presses. When they have had sufficient experience and have proven themselves capable of taking charge of the operation of a large press, they can be promoted to this higher position. The same methods of promotion or progression within the trade prevail in the electrical trades. The electrical workers are comparatively newcomers in the building trades, and the occupation is still considered to be in its infancy. Many of the journeymen receive their training in the technical schools, but before they become proficient workmen they must gain practical experience in their craft, and accordingly they begin as "helpers" or "juniors." Ordinarily a helper is allowed to do certain lines of work in any branch of the trade, and as soon as he feels confident that he can do journeymen's work, he is given an examination which, if successfully past, entitles him to a journeyman's wages. If not successful, he continues to work as a helper, receiving helper's wages.^(a)

Probably the best illustration of progression within a trade after years of experience and by means of entrance examinations is the method of promoting engine and train men prevailing with American railway companies.^(b) As a general rule engine men in charge of locomotives are promoted from firemen, and conductors are promoted from the position of brakemen. No definite term of service

^a The following clause in the Boston agreement of the electrical workers and the employers (1904) covers this provision: "A helper shall not be allowed to finish work in any branch of the trade. If a helper feels confident he is able to do journeyman work after he has served three years, he shall make application to the classifying board, and if he successfully passes the examination he shall be entitled to a journeyman's wages; if not successful, he shall continue to work as a helper, receiving helper's wages, and can not make application for another examination for six months."—Bulletin of the Massachusetts Bureau of Statistics of Labor, No. 34, p. 367.

^b For a detailed description of admission to the various grades of railway service, see Report of the Industrial Commission, Vol. XVII, pp. 746-774.

is prescribed for either firemen or brakemen, but when a vacancy occurs in the higher positions those among the firemen who are held to be most capable are given the positions. A thoro examination is required of the applicants before they are permitted to become candidates.^(a)

The relation of helper to the journeymen in many occupations is closer and more personal than the relation of apprentices and journeymen. It is usually advantageous to the journeyman to have a competent helper, especially where the piecework system of wage payment prevails. The helper is in most cases under the direct supervision of the journeyman, whose methods and whose workmanship he has an opportunity of observing closely. It is not uncommon for an experienced helper to know as much of a journeyman's work as the journeyman himself; and this, as has been previously explained, frequently leads the employer to hire more helpers at lower wages than received by journeymen. There are, however, different classes of helpers, and the displacement of journeymen by them can occur only in such occupations in which the duties of the helper are very similar to those of the journeymen, or where the former has constant opportunity of closely observing the work of the latter.

Three different groups of helpers may be roughly distinguished: (1) Ordinary laborers, (2) "improvers," "holders on," or "junior workmen," and (3) handy men. The first group, who usually prepare material for the journeymen or who bring them their tools and do other odd jobs, are not serious rivals to the skilled mechanic, and only in rare cases do they strive to enter the ranks of the journeymen. In bricklaying, plastering, and a few other building trades in which there is much unskilled work to be done, practically no opportunity is afforded the helper to become a mechanic, and accordingly the unions of these trades have made no serious efforts to control the building laborers working with them.

The case is different, however, with the second class of helpers, namely, the "holders on," "improvers," or "junior workmen." These men, tho not in training, are enabled to do work similar to that of the journeyman under whose direction they are employed, and if diligent and observing they soon acquire a thoro knowledge of the craft. Since their wages are from 25 to 50 per cent lower than those of the journeyman, they not infrequently strive to attain the rank of journeymen by doing the work of the latter at lower wages. In order to maintain the standard rate, therefore, the journeymen whose work is encroached upon endeavor both to restrict the number of these "illegal men" and to organize them under their jurisdiction. The Brotherhood of Boilermakers, the United Association of

^a For specimen of such examinations, see Report of the Industrial Commission, Vol. XVII, pp. 756-764.

Journeymen Plumbers, the Brotherhood of Electrical Workers, the Tile Layers, and a few other trades have already taken the helpers or junior mechanics under their jurisdiction.

The third class of helpers, the "handy men," are not necessarily attached to journeymen, since they do not aid directly in the work of the latter. They are men who either are employed around the shop at odd jobs, or who do the less skilled parts of work, such as finishing, filling in, and so forth. The skilled mechanics endeavor to restrict this class of workers also.

Owing to the fact that the "helper system" tends to increase the supply of workmen more rapidly than the apprenticeship system, numerous cases of friction have resulted therefrom, both between different grades of workmen in the same trade and between the trade unions on one side and the employers on the other. The history of the plumbing trades, the printing pressmen, the boiler makers, and the machinists is replete with controversies over the method of promotion from the grade of handy man or helper to that of full-fledged journeyman.

The recent controversy in the International Printing Pressmen and Assistants' Union affords the best example of friction between different grades of workers in the same craft. Three classes of pressmen are found in the printing trades: (1) Web or cylinder pressmen (men who take charge of large cylinder presses, such as are used in newspaper offices), (2) job pressmen, who are the ordinary pressmen of the printing shops (men who mix the inks and adjust the chases of type on the printing presses), and (3) the feeders or assistants. All three branches of the craft are comprized in one international union, the International Printing Pressmen and Assistants' Union. In large towns and cities each branch maintains separate local organizations. The web pressmen are the highest skilled in the trade, since in addition to a knowledge of inks and color mixing they must understand the mechanism and action of rotary cylinder presses over which they have charge. Each web pressman in charge of the press crew requires three or four assistants for the operation of large presses. Owing to the development of artistic printing the standard of skill required of pressmen has been considerably enhanced, and the different grades of pressmen included in the one organization represent, in a way, the progress that has taken place within the trade. Pressmen are ordinarily recruited from the assistants or feeders. According to the constitution of the International Printing Pressmen's Union of 1905 all assistants in the web press room must come from the Assistants' Union, and the Assistants' Union shall have the right to organize all help in the web press room. Apprentices to the web pressmen are taken from the Feeders and Job Pressmen's union.^(a)

^a See Constitution of the International Printing Pressmen and Assistants' Union, revised and adopted June, 1905, By-laws, Article III, sections 1 and

Considerable controversy in the International Union has resulted from the practical application of this rule. The young men who do the work in press rooms that should be rated as apprentices' work are quite numerous, and this makes it difficult to rotate them in line of succession. Altho previous to 1901 a four-years' apprenticeship of "practical presswork" and a rigid examination as to competency was nominally required for admittance to the ranks of journeymen pressmen, an assistant, if he was able to earn the pressmen's scale, was given permission to work as a pressman until the period of his nominal apprenticeship had expired. He was then eligible to membership in a pressman's local, and when transferring his membership he could not then be charged an initiation fee greater than the difference between the initiation fee of the local from which he withdrew and of that which he joined. Under these conditions promotion from one grade to another was not so much a matter or question of training and experience as the maintenance of the standard rate. The union has not, however, succeeded in defining with distinctness the qualifications for each grade of pressmen. As a usual thing a boy generally spends a number of years working in a printing office as a feeder, either assisting a journeyman or operating the small presses and doing other odd jobs about the press rooms. When the employer or foreman places him in charge of a larger press, at which he is competent to earn the prevailing scale of wages, he is ordinarily regarded as a journeyman pressman. This system of promotion deprived the higher-grade mechanics of the control over the admission to their branch of the trade, and consequently made it possible for employers to readily replace them. The president of the International Union stated to the thirteenth annual convention (1904) that "Pressmen are claiming that the so-called helper is in too many instances an illegitimate pressman with the garb of unionism thrown around him by a feeders' union."^a

The web pressmen complained further that the feeder, or assistant who does the work both of the feeder and of a pressman, was only standing in the way of the competent pressman. Consequently an effort was made in several localities to establish an apprenticeship period for such assistants and job pressmen as were desirous of taking charge of cylinder presses. In 1902 Web Pressmen's Local No. 40, of Denver, refused to admit a member of an assistants' union who had worked four years in a press room and who had been given charge of a press at journeymen pressmen's wages. The pressmen held that he was not entitled to the position he had received at the hands of his employer, since he had not complied with their apprenticeship rules. Disputes of this character occurred in other locals,

^a Proceedings of the Thirteenth Annual Convention, 1901, p. 341.

the web pressmen contending that as long as any of their members were out of employment no assistant should be allowed the right of advancement.^(a)

In the annual conventions of 1904 and 1905 of the International Printing Pressmen and Assistants' Union the controversy over the proper method of advancing pressmen from the lower to the higher grades of work continued to be the bone of contention. In 1904 a law was passed making it compulsory upon the pressmen's locals to admit to membership all union men who were operating job presses, provided that the latter had complied with the laws and rules of the assistants' and feeders' unions.^(b) The next year the convention endeavored to put an end to the dispute between job pressmen and web pressmen by passing a law granting the right to a pressman to run any kind of printing press, provided he earned the standard rate fixed by the workmen of that class and transferred his membership to the local having jurisdiction over the same.

The controversy over the "helper" in the plumbers' organization, tho of a different character, was no less interesting than that of the pressmen. Here the conflict raged between the employers and mechanics. Both in England and the United States it has long been the practise for journeymen plumbers to be recruited largely from helpers. According to Sidney and Beatrice Webb:

The employers in London do not engage boys or apprentices to assist the men in plumbing, or to learn the trade. The custom is for each plumber to be attended by an adult laborer, known as the "plumber's mate." Any employer is at liberty to promote a plumber's mate to be a plumber whenever he chooses, provided only that he pays him the plumber's standard rate. Notwithstanding the fact that the number of "plumber's mates" who form the class of learners, is four or five times as numerous as would suffice to recruit the trade, the London branches of the United Operative Plumbers' Society effectively maintain a high standard rate.^(c)

^a Proceedings of the Fifteenth Convention, 1903, p. 369.

^b In 1902 the feeders and job pressmen, dissatisfied with their treatment by the web pressmen, inaugurated a movement to secede from the International Pressmen's Union and form a separate international organization. They claimed that the web pressmen endeavored to prevent their advancement. The proposition was voted on by the union and defeated.

^c Industrial Democracy, new edition, 1902, pp. 475, 476.—A different attitude of journeymen plumbers toward the "mate" is expressed in Charles Booth's *Life and Labor of the People of London*, Vol. V, p. 62: The "plumber's mate" stands in the same position as the laborer of the other sections [building trades], but it seems to be admitted that if he is employed at all he must find some of his work in the use of the plumbers' tools for subordinate purposes, and thus be in training to do plumbers' work. This is a bitter source of complaint with many plumbers, but others admit that a smart mate can not help the plumber without picking up a great deal of the trade, and if by this means he becomes thoroly efficient the plumbers have no right to keep him from getting the full rate of wages.

The effect in the United States of employing helpers has not been so favorable to the journeyman as in London. For a number of years the plumbers' unions have complained that the employment of helpers results in an oversupply of plumbers.^(a) The general complaint of the journeymen is that the helper, after a year or two, does not care to become an apprentice, but gets a helper of his own and works as a journeyman. In 1896 the United Association of Plumbers began a movement to abolish the "helper" from the craft and to prohibit the further employment of apprentices until the oversupply of journeymen in the trade was reduced.^(b) This policy is defended on the ground that some of the employers made it a practise to have most of their work done by helpers, tho they charged their customers no less than if they had paid journeymen's wages. The officials of the union claim that the movement is not intended to be permanent, and that it has never been strictly enforced. In 1900 it was stated that no helpers were employed in Chicago, Cleveland, Omaha, Denver, and St. Louis. In the St. Louis agreement between the plumbers and the employers of that year a clause provided that there "will be no more apprentices or juniors hired during the term of this agreement, but all apprentices who are registered by the joint association shall be permitted to complete their time, which will be 5½ years, and at the expiration of same shall receive journeymen's wages; but in no case shall there be more than one apprentice employed in a shop at one time." The agreement with the New York Master Plumbers' Association for the year beginning July 1, 1902, contained a similar clause.^(c)

Many of the employers in the plumbing trade were in favor of temporarily dispensing with apprentices, claiming that the oversupply of journeymen was tending to increase the number of small contractors. It is a comparatively easy matter for a journeyman plumber possessing a kit of tools to open a small shop of his own and undertake small plumbing contracts. It is these small shops which, according to the report of the president of the union in 1900, are becoming a most menacing evil, causing the introduction of an immense number of apprentices into the trade and thus tending to decrease the wages of the journeymen.^(d)

^a Plumbers, Gas and Steam Fitters' Official Journal, February, 1906.

^b Mr. Kelley, president of the United Association of Journeymen Plumbers, testified before the Industrial Commission that the term of apprentices at that time was four years as a helper, to be followed by two years of apprenticeship, i. e., work under instruction. When the full term was completed the apprentice received a certificate from the journeymen's organization, and sometimes from the organizations of journeymen and of employers jointly.—Report of the Industrial Commission, Vol. 4, p. 966. See also Eleventh Special Report of the Commissioner of Labor, p. 37.

^c Eleventh Special Report of the Commissioner of Labor, p. 362.

^d Report of the Industrial Commission, Vol. XVII, p. 169. Also Eleventh Special Report of the Commissioner of Labor, p. 373.

Where it has been found impracticable to do away entirely with helpers the union has endeavored to restrict their number, and in drawing up agreements both among plumbers and steam fitters provision is generally made that not more than one helper be allowed to a journeyman, and that no helper or apprentice should be sent to do jobs upon which a journeyman is not employed. This restriction prevents employers from sending out apprentices and helpers to do repair jobs.

It is also a growing practise, both among steam fitters and plumbers, for the local unions to conduct examinations of apprentices and helpers who seek admittance as journeymen. The constitution of the United Association of Journeymen Plumbers prescribes that each local shall have an examining board, where circumstances will permit, to examine into the qualifications of candidates for membership. Any member who moves to another city must satisfy the requirements of the local examining board if it is demanded, even tho he has past an examination in the city from which he came. In a number of localities these examinations are conducted jointly by the local employers' association and the union. A strike was caused in St. Louis, February, 1899, by the journeymen refusing to accede to a rule past by the employers, that any fitter, having been rejected by the examining board of the union, shall be examined by a committee of the master plumbers' association, and "if found competent shall be permitted to work in any shop that will employ him."^a

In New York recently the employing steam fitters complained that the union made the requirements of the examination intentionally severe in order to keep the membership low.^b The president of the international association, in his report to the fourteenth convention, stated that in other localities there was also considerable complaint that the examinations were too severe, and he advised as a remedy that these examinations be under the control of the international union instead of the locals.

In a number of States and localities there are laws prescribing a special theoretical examination of plumbers and gas and steam fitters. The aim of these laws is to protect the public against the doing of poor work by incompetent journeymen. The unions are strongly in favor of such State and municipal regulations regarding entrance to their trade, and endeavor to have them enforced wherever possible.

With the advent of machinery in the boiler-making and shipbuilding industries, the helper and handy man are likewise tending to encroach upon the work of the journeyman boiler maker and displace

^a Report of the Industrial Commission, Vol. VII, p. 949.

^b Proceedings of the Fourteenth Convention of the United Association of Journeymen Plumbers, p. 29. See also Eleventh Special Report of the Commissioner of Labor, p. 375.

the apprenticeship system. Details of all kinds in connection with boiler construction, which were formerly made by hand, can now be purchased in the open market in the same manner as traps, drums, and other parts formerly made by the plumber. A modern steam boiler is in every detail a machine-made article. From the shaping and bending of the plates to the fastening of the rivets and the tightening of the joints machine work is paramount; likewise the riveting of ships' hulls, deemed impossible other than by hand a few years ago, is now done by portable squeezers operated by water or by compressed air.^(a) The most difficult and critical work the boiler maker formerly had to execute by hand is now delivered exactly from dimensions as per blueprint furnished. Consequently much of the work done by the skilled boiler maker has been relegated to "holders on" and handy men.

The question of limiting the number of helpers in the trade and restricting them to certain lines of work is thus becoming a serious matter to be dealt with by the journeymen boiler makers. In 1900 the president of the Brotherhood of Boiler Makers discuss the question in his report and urged the organization of helpers and handy men under the jurisdiction of the Brotherhood, as follows:

The handy man question should receive ample attention, for in protecting and placing them we are protecting ourselves. They should become members of our craft and help us as well as be helped. I don't mean all classes of helpers, only those who can take our places in cases of emergency. Their work should be set aside for them the same as ours, and then it would be an easy matter to help protect each other.^(b)

Following this advice in 1900, helpers and handy men were first admitted to the local lodges of journeymen boiler makers in the United States.^(c) The year following separate lodges of helpers and handy men were organized under the title of the Helpers' Division of the Brotherhood of Boiler Makers and Iron Shipbuilders, the constitution of the Brotherhood providing that a helpers' subordinate lodge may be organized in any locality "with the consent of the regular subordinate lodge of the district," such lodges to be governed and installed by the executive council.^(d) The helper and handy man division is thus not a self-governing branch, merely having the privilege of electing one vice-president of the International Brotherhood. Moreover, its constitution and by-laws are formulated by the

^a Cassier's Magazine, Vol. XX, p. 109.

^b Journal of the Brotherhood of Boiler Makers and Iron Shipbuilders, August 1, 1900, p. 231.

^c In England helpers and handy men had already been organized under the jurisdiction of the Boiler Makers' Union.

^d Constitution of the Brotherhood of Boiler Makers and Iron Shipbuilders (1901), p. 35.

executive council of the International Brotherhood of Boiler Makers and Iron Shipbuilders. In July, 1905, the Brotherhood of Boiler Makers and Iron Shipbuilders had organized 83 helpers' lodges under its jurisdiction. There were about 300 journeymen's local lodges.^(a)

TRADE AND TECHNICAL EDUCATION.

Trade and technical education is regarded by many employers as the logical substitute for the old system of apprenticeship. Industrial and technical schools have accordingly been established in a number of localities, and are found at present in the important industrial centers in the United States. They may be roughly grouped into three classes: (1) The manual-training schools; (2) the trade schools, and (3) technical schools and colleges.

The manual-training schools do not directly aim to teach their pupils a trade. Their paramount purpose is rather to train boys and girls in the use of tools and accustom them to manual exercise. An educational discipline is thereby acquired which may be useful in all walks of life, but which does not necessarily add directly to the earning capacity of the pupil. The other two classes, however, have as their principal aim the preparation of pupils for a trade or profession thru which they may gain a livelihood. The trade school proposes to give a beginner or apprentice a thoro and practical knowledge of some manual occupation. The technical school, on the other hand, is a high-grade trade school, in which both a craft and the scientific principles upon which it is grounded are taught.^(b) Such schools and colleges, combining a high intellectual as well as a manual training, are intended for foremen and superintendents rather than handicraftsmen and mechanics.

The trade schools which limit their instruction to the teaching of manual occupations are alone designed to take the place of the old apprenticeship system. These ordinarily may be divided into two classes: (1) Those in which the practical knowledge of a craft is taught to a beginner, and (2) those in which men who are already working at the trade, but who wish to improve their training and workmanship, are given instruction. A number of the important trade schools of the United States combine both of these features.

^a The wages of the different grades of workmen in the boiler-making and ship-building industry are shown in the following scale, taken from the agreement with Bartlett, Hayward & Co., of Baltimore, February, 1904, and published in the Journal of the Brotherhood of Boiler Makers and Iron Shipbuilders, March 1, 1904, p. 161:

	Per day of nine hours.
Boiler makers.....	\$3.37½
"Holders on".....	2.50
Heaters.....	2.25
Helpers.....	2.00

^b Eighth Annual Report

of Labor, 1892, v. 15.

The trade schools whose primary aim is to give a pupil an efficient practical knowledge of some handicraft, so as to enable him to straightway enter as a journeyman after completing the courses of instruction, usually restrict their instruction to matters pertaining directly to the craft, and seek to turn out trained mechanics in as brief a time as possible. It is this species of trade education which is most distasteful to the trade unions, and against which they are constantly combating. As a general rule the boys completing their courses in these schools do not immediately become journeymen, but begin as helpers, and in some instances as apprentices.

The trade schools, whose primary object is the technical improvement of the workman in the trade he is already following, seem well adapted to present conditions. The statement frequently heard that a trade can not be taught in a school is in certain respects true. But to give instruction to a workman who is already a mechanic, which renders him capable of doing his work better and more quickly, and in addition furnishes him with a general idea of the part played by his effort in the production of commodities to which he probably contributes only a small portion of the labor and skill, is of practical value in almost every occupation. Where practical instruction in an industry is given in a school it is impossible to reproduce conditions prevailing in actual factories and workshops. A boy, in order to become a thoro mechanic must receive his training under the same conditions that he may meet with when a full-fledged journeyman. Hence, the classes to which practical work in a trade is taught should be largely confined to students already actually engaged in some branch of the trade. "For while it is obvious to all practical men that trades can not be successfully taught in a school, yet much can be done to supplement the training of the workshop by affording facilities for practical work in those branches of a trade which young men get few opportunities of learning in their shops."^a Furthermore, instruction should be given by practical men who, in addition to special ability in their own particular trade, possess a general knowledge of the scientific or artistic principles which are more or less intimately connected with their industry.

In considering trade education, it must be borne in mind that not all occupations can be successfully taught in a school. It is only such trades which, in addition to practical workmanship, require a theoretical and intellectual training on the part of the mechanic. For this reason the building and engineering trades are more largely taught in trade schools than are other occupations. The plumbing trades (usually popular courses in trade schools), for example, demand a training in the principles of sanitation for proficient workman.

^a *Workers on their Industries*, edited by Galton, p. 5.

while a knowledge of mathematics and mechanical drawing is a valuable acquisition to those desiring to become proficient machinists or pattern makers.

The trade unions, tho conceding that schools in which workmen can receive instruction in their trade are a benefit, with few exceptions do not encourage trade education other than that acquired by the apprentice in the shop. They accordingly grant no exemption from the full term of apprenticeship to graduates of trade schools. The schools not opposed by the trade unions are those which are open only to apprentices and mechanics, and in which the instruction aims primarily to supplant the practical training acquired in the workshop. On the other hand, schools which attempt to make mechanics are bitterly opposed by the skilled trades as a direct interference with apprenticeship regulations. Such schools, it is claimed, not only create an abnormal supply of embryo workmen, but also lower the standards of skill and efficiency in a craft and have a depressing effect upon wages.

In several localities the agreements between employers and unions of bricklayers and masons contain provisions regarding special instruction of apprentices in elementary or trade schools. Thus, the "Working Rules and Apprenticeship System of the Master Builders' Association and the Bricklayers' Union No. 3, of Boston, Mass.," contain the following statement:

— Recognizing the fact that special instruction in the fundamental features of the bricklaying trade (which instruction shall comprehend education of both mind and hands, so that the individual shall gain a proper knowledge of quantity and strength of materials and the science of construction) is of as much importance as special instruction in other trades or professions, and, realizing that the chances of an apprentice to get as much instruction as he is entitled to, while at work on buildings, is necessarily limited, the parties to these rules agree that they will join in an effort to establish an institution in this city (Boston) where all the trades shall be systematically taught; that when such school is established they will unite in the oversight and care of the same and will modify these rules so that a reasonable deduction shall be made from the term of an apprentice (not less than three years as fixt at present) by virtue of the advantage gained thru instruction in said school.^(a)

Similarly, the arbitration agreement between the Chicago Masons and Builders' Association and Bricklayers and Stone Masons' Union No. 21, April 1, 1903, to May 1, 1905, provides:

The contractor taking an apprentice shall engage to keep him at work for nine consecutive months in each year and to see to it that during the remaining three months of the year the apprentice attends school. The apprentice shall, during the months of January, February, and March, each year, attend a technical school acceptable to

^a *Seventeenth Annual Report of the Commissioner of Labor, 1902, p. 415.*

the joint board, and a certificate that he has done so will be required before he is allowed to work during the year.^(a)

With the important exception of the absence of practical experience, the trade and technical education has much the same advantages as the old apprenticeship system. The great drawback to the present-day worker is the high uncertainty that invention and new processes create, causing disarrangement of industrial conditions and leading to a maladjustment in the demand and supply of certain kinds of labor. This condition must be met by enabling the worker to readily adapt himself to the changing employments. He should be made versatile, and if a mechanical device supplants him in his branch of the trade he should be enabled to adjust himself to another branch. Much distress due to changing industrial conditions would thus be mitigated. Moreover, the worker would thus get rid of the notion that he is destined to spend his life in the repetition of some simple process. Trade education, combined with practical shop experience, seems to be adapted to these purposes, and it therefore should be made accessible to as many mechanics as possible. The workman who is skilled in the use of tools, and in addition has a thoro understanding of the technical processes of his trade, is more capable of accommodating himself to new employments. He is therefore more competent to improve his social conditions, since he readily moves from a less to a more remunerative occupation in his line of work, a mobility which conduces to industrial independence and robs inventions of their terrors.

The most serious danger connected with trade and technical education is the tendency on the part of the schools to hastily turn out workmen with only a smattering of a trade, and then thrust them upon the labor market as a constant menace to the thoroly trained and skilled mechanic. The mechanic's opposition to private trade schools of this sort is consequently well founded. Many, conducted in a purely commerical spirit, do not teach the pupils the value of skilled trades.

Another danger in trade and technical education to be reckoned with is the possibility of overemphasizing the theoretical at the expense of the practical instruction. The splitting up of trades and occupations in many industries seems to render technical training of little practical value to the worker. Frequently the sacrifice and energy expended in attaining technical knowledge of the trade is not requited to the worker when he enters his industrial career, especially when he is confined to a narrow range of work and has very little opportunity of utilizing to its full advantage the theoretical knowledge he has obtained in the trade school. Young men who are educated are not content to remain manual workers, and seek employment more adapted to their higher intellectual training.

^a Bulletin of the Bureau of Labor, No. 47, p. 909.

COST OF INDUSTRIAL INSURANCE IN THE DISTRICT OF COLUMBIA.

BY S. E. FORMAN.

INTRODUCTION.

The purpose of the present article is to show the cost of insurance in the District of Columbia to those whose earning capacity is small, and who are consequently unable to purchase insurance in the ordinary way, by annual, semiannual, or even quarterly payments. The cost of ordinary commercial insurance is also discust in order to show by comparison the much higher prices paid for insurance by the very poor who purchase it with small weekly premium payments. The main subject of inquiry has been the cost of what is known as industrial insurance, inasmuch as insurance of this class is carried almost exclusively by the working people and the poor.

The subject has been treated strictly from the point of view of the insured. The economies of life insurance viewed from the standpoint of the companies have not been discust. The forms under which the several insurance companies are organized, whether stock or mutual, the financial condition and cost of management of the companies, the merits or demerits of this or that kind of policy, are subjects lying entirely outside the scope of this investigation. In the purchase of many necessities, the poorer the purchaser the higher the price he must pay for his commodity, and the purpose of this inquiry is simply to learn to what extent the same thing is true in respect to the purchase of insurance.

In the annual reports of the superintendent of insurance for the District of Columbia life insurance companies are divided into three classes: Regular life insurance companies, life-assessment associations, and fraternal beneficial associations. Under this classification a regular life insurance company is understood to be one which insures for a fixt premium to be paid annually, quarterly, monthly, or weekly, according to the terms of the policy. The quality of regularity resides in a fixedness and unchangeableness in the amount and number of the premiums named in the contract. In a regular company the sum or sums to be paid as premiums are thus always ascertain

from the terms of the policy. A life-assessment association is one where the amount to be paid by the policy holder as a premium is subject to change. Under the assessment plan a levy may be made upon the policy holder sufficient to meet any losses sustained by the company, and the levy may take the form of a higher premium or a greater number of premiums. A fraternal beneficial association is declared by the District Code (sec. 749) to be "a corporation, society, order, or voluntary association, formed or organized and carried on for the sole benefit of its members and their beneficiaries, and not for profit, having a lodge system with ritualistic form of work and representative form of government, making provision for the payment of benefits in case of death. Each such association may make provision for the payment of benefits in case of sickness, temporary or permanent physical disability, either as a result of disease, accident, or old age."

Of the three kinds of insurance thus recognized by the insurance department of the District of Columbia, the first and second kinds, regular and life-assessment, are conducted for the sake of profit—the premiums are paid into the treasuries of business concerns organized for the purpose of profit. The third kind, fraternal beneficial insurance, yields no pecuniary profit to those who conduct it—all that is paid into the treasury, minus a small sum for clerk hire and other necessary expenses, finds its way back to the members of the fraternity or to their beneficiaries. The subject of insurance, therefore, may be divided into two main topics, insurance for profit, or commercial insurance, and insurance without profit, or purely fraternal insurance. This article will make comparison only of the cost of insurance conducted in the District of Columbia for the sake of profit.

Before passing to the main subject a rapid glance will be taken at the industrial conditions which prevail in the District.

INDUSTRIAL CONDITIONS.

The city of Washington—for the District of Columbia and Washington are coextensive—is unlike any other American city in its industrial organization. It has no large mills or factories, no great jobbing houses, no extensive shipping or railway interests. Of course the effects of this are seen in the character of the city's population.

Moreover, nearly one-third of the entire population is colored and the great mass of these belong to the common labor class, employed either at unskilled labor or in domestic or personal service. Street railways, the skilled occupations, and the professions afford employment to but few.

If the occupations of the people of Washington be compared with the occupations of the people of other cities containing a nearly equal population the unique features of industrial conditions in the

Capital will at once be appreciated. Washington, with its population of 278,718 (Census of 1900), Detroit with its population of 285,704, and Milwaukee with its population of 285,315 may be taken for such a comparison. The table below shows for the three cities the number of persons engaged in those occupations where the number involved is at least 500 in some one of the cities:

PERSONS 10 YEARS OF AGE OR OVER ENGAGED IN CERTAIN OCCUPATIONS IN 1900 IN WASHINGTON, DETROIT, AND MILWAUKEE.

[From the Twelfth Census of the United States, 1900.]

Sex and occupation.	Washington.	Detroit.	Milwaukee.
MALES.			
Clerks and copyists.....	11,523	4,781	3,245
Servants and waiters.....	4,898	1,301	834
Printers, lithographers, and pressmen.....	2,842	1,293	1,305
Messengers and errand and office boys.....	1,345	603	541
Porters and helpers in stores.....	921	225	235
Draymen, hackmen, and teamsters.....	3,994	2,924	3,313
Laborers (not specified).....	12,476	11,828	10,635
Masons (brick and stone).....	1,153	745	821
Stenographers and typewriters.....	321	251	271
Watchmen, policemen, firemen, etc.....	1,067	1,450	947
Barbers and hairdressers.....	860	654	658
Janitors and sextons.....	511	325	299
Plumbers and gas and steam fitters.....	1,074	895	903
Bartenders.....	581	501	505
Electricians.....	461	524	430
Merchants and dealers (not wholesale).....	3,945	4,066	3,417
Street-railway employees.....	817	889	710
Bakers.....	622	661	722
Salesmen.....	2,644	2,665	2,846
Blacksmiths.....	775	983	959
Butchers.....	569	896	837
Hucksters and peddlers.....	526	928	525
Tin plate and tinware makers.....	469	495	917
Agents.....	1,551	2,094	1,997
Boatmen and sailors.....	223	820	548
Engineers and firemen (not locomotives).....	1,116	1,714	1,303
Restaurant and saloon keepers.....	612	834	1,217
Boot and shoe makers and repairers.....	496	877	1,188
Tailors.....	616	1,060	1,338
Bookkeepers and accountants.....	837	1,734	1,756
Manufacturers and officials.....	925	1,918	1,816
Painters, glaziers, and varnishers.....	1,441	2,460	1,896
Brewers and maltsters.....	118	248	1,277
Steam-railroad employees.....	1,185	2,131	2,378
Carpenters and joiners.....	2,298	3,510	3,228
Machinists.....	1,392	1,896	2,966
Iron and steel workers.....	300	3,198	4,404
Saw and planing mill employees.....	58	188	585
Coopers.....	27	183	668
Stove, furnace, and grate makers.....	5	1,109	170
Brass workers.....	26	943	372
Tobacco and cigar factory operatives.....	94	805	636
Leather tanners and curriers.....	14	135	2,169
FEMALES.			
Servants and waitresses.....	15,231	6,981	6,430
Laundresses.....	7,192	1,018	1,177
Clerks and copyists.....	4,697	1,382	545
Nurses and midwives.....	1,311	642	564
Teachers.....	1,508	1,297	1,255
Housekeepers and stewardesses.....	529	484	357
Dressmakers.....	2,993	2,949	3,134
Seamstresses.....	813	914	1,042
Stenographers and typewriters.....	708	943	897
Bookkeepers and accountants.....	482	768	571
Saleswomen.....	1,320	1,108	1,709
Milliners.....	344	589	771
Tailoresses.....	214	986	790
Hosiery and knitting mill operatives.....		135	862
Tobacco and cigar factory operatives.....	16	1,503	240

The comparison shows plainly that Washington is a city in which an unusually large number of people are engaged in personal service. The total laborers, servants (male and female), waiters and waitresses, and laundresses and nurses in Washington outnumber those in Detroit similarly classified by nearly two to one and those in Milwaukee by more than two to one. Moreover, the table shows that the people of Washington are not engaged to any considerable extent in the ordinary occupations of the industrial world. The steel and iron workers, brassworkers, boot and shoe workers, and the like, who are quite numerous in Detroit and Milwaukee, in Washington are of little or no numerical importance. It will be seen that the large number of persons in Washington dependent upon the very lowest-paid occupations has a direct bearing upon the insurance business of the city.

COST OF ORDINARY INSURANCE.

Insurance conducted for profit, or commercial insurance, is designated as either ordinary or industrial. It is called ordinary when the premiums are paid annually, semiannually, or quarterly; industrial when the premiums are paid weekly or monthly. Ordinary insurance is characterized by large and infrequent premium payments; industrial insurance by small and frequent premium payments. Since, as a rule, only the well to do can make large payments, it may be said that ordinary insurance is purchased by the prosperous and that industrial insurance is purchased by the poor. The policy conditions also of these two kinds of insurance differ widely from each other. In order that there may be some basis for measuring the cost of insurance to the poor a very brief consideration will first be given of the cost of ordinary insurance.

The premiums paid in 1903 in the District of Columbia for commercial insurance, the amount of insurance, and the number of policies in force December 31, 1903, were as follows:

NUMBER OF POLICIES AND INSURANCE IN FORCE DECEMBER 31, 1903, AND PREMIUMS PAID IN DURING YEAR.

[From the Report of the Department of Insurance of the District of Columbia for the year ending December 31, 1903. In the Report of the Department of Insurance the premiums on 3,728 ordinary policies for \$3,152,619, issued by companies writing both ordinary and industrial insurance, were not separately reported. Using as a basis the average premium on all ordinary insurance for which the premiums paid were reported, the premiums on this \$3,152,619 of ordinary insurance have been estimated at \$116,000 and included in this table under the premiums paid in on ordinary insurance during year.]

Kind of insurance.	Premiums paid in during year.	Policies in force December 31, 1903.	
		Number.	Amount.
Ordinary.....	\$1,900,429.98	23,271	\$53,203,631.43
Industrial (including policies in assessment associations).....	1,024,753.09	307,506	24,127,215.94
Total.....	2,925,183.07	230,967	77,390,847.37

It is thus seen that while the premiums paid for ordinary insurance were greatly in excess of those paid for industrial insurance, the number of policies in force on the industrial plan was vastly greater than the number of ordinary policies. It is also seen that the average amount of an ordinary policy (nearly \$2,300) is about twenty times as great as the average amount of an industrial policy (\$116).

The rate at which companies sell ordinary insurance depends altogether upon the kind of policy bought, and the kinds of policies are almost as many as the wit of man has been able to devise. For the purposes of this article all those kinds of policies into which the idea of investment is blended with the idea of insurance may be ignored.

This study is concerned here chiefly with insurance considered as a means of protection—insurance pure and simple. What rates do the policy holders who meet their premiums in the ordinary way pay for insurance where the idea of protection alone enters into the contract? This question is answered precisely enough by the following table, which shows the average rate charged for nonparticipating policies by six companies which transact by far the larger part of the nonparticipating business in the District:

AVERAGE RATE CHARGED FOR \$1,000 OF INSURANCE BY SIX LEADING COMPANIES FOR ORDINARY NONPARTICIPATING POLICIES.

[The figures upon which this table is based are taken from the "Handy Guide to Premium Rates, Applications, and Policies of American Life Insurance Companies," 1905.]

Age of insured (years).	Average annual premium per \$1,000.	Age of insured (years).	Average annual premium per \$1,000.	Age of insured (years).	Average annual premium per \$1,000.
21.....	\$15.30	35.....	\$22.10	49.....	\$37.16
22.....	15.63	36.....	22.81	50.....	38.84
23.....	16.01	37.....	23.55	51.....	40.62
24.....	16.37	38.....	24.35	52.....	42.50
25.....	16.76	39.....	25.20	53.....	44.52
26.....	17.18	40.....	26.10	54.....	46.70
27.....	17.63	41.....	27.04	55.....	48.98
28.....	18.08	42.....	28.04	56.....	51.53
29.....	18.57	43.....	29.12	57.....	54.16
30.....	19.08	44.....	30.26	58.....	56.97
31.....	19.63	45.....	31.47	59.....	59.98
32.....	20.19	46.....	32.77	60.....	63.19
33.....	20.79	47.....	34.13		
34.....	21.42	48.....	35.60		

The rates given in the above table are approximately those charged not only in the District of Columbia but everywhere in the United States by responsible concerns for pure insurance on nonparticipating policies when the premium is paid annually. They contain all the elements of ordinary insurance cost, including that of business management, and since they represent the experience of all the great companies thru a long period of time they may safely be taken as a standard of reference when comparisons are desired.

Since the cost of ordinary insurance in the District is the same as that charged everywhere, and since one company charges almost precisely the same as another for the same amount of protection, the subject of the cost of ordinary insurance requires no extended comment and admits of no elaborate comparisons.

COST OF INDUSTRIAL INSURANCE.

Industrial insurance is organized with the premium payments adjusted to meet the necessities of people working for a small wage. Policies are issued in very small amounts, the average being far below \$500, which is the maximum limit in most industrial companies. Premiums are payable weekly, most frequently in amounts of 5 or 10 cents, on Mondays, and collectors call for them regularly at the homes. Such a method involves not only an army of agents for the soliciting and collecting, but a very large number of clerks and officials for the keeping of such a multitude of small weekly accounts and for the efficient administration and supervision of the complicated machinery of such an organization.

All of this detail of collecting, bookkeeping, etc., entails necessarily much additional expense and this expense is largely increased by—

1. The inevitable losses resulting from the many policies which are allowed to lapse before the companies are compensated for writing the policies or even the agent for soliciting them;
2. The higher mortality rate resulting from the character of the medical examinations, which, on 5 and 10 cent policies, are necessarily superficial; and
3. The higher mortality rate due to the large proportion of infantile risks.

The premium charges for ordinary insurance have been established by many years of experience and have assumed almost the character of mathematical constants. Industrial insurance, on the other hand, is a production of more recent times and its charges have not to the same extent been subjected to the various tests of an extended experience. But the volume of industrial insurance has already swollen to enormous proportions, and is growing at an accelerated rate. More than 15,000,000 industrial policies are in force in the United States and the amount of industrial insurance approximates \$2,000,000,000. "There is scarcely a block in our large cities or a remote hamlet in the country section which does not receive a visit from at least one industrial agent each week." ^(a) The extent of industrial insurance among the poor in the District of Columbia is strikingly illustrated by the fact that in 19 poor families investigated, numbering 124 persons, 119 industrial policies were found to be in force. ^(b)

^a The Standard, March 18, 1904, p. 277.

^b Bulletin of the Bureau of Labor, No. 64, p. 613.

Two kinds of protection are purchased on the industrial plan, the ordinary form of policy which gives protection in case of death alone, and the policy which combines protection in case of sickness and accident with protection in case of death. Hence two kinds of industrial insurance must be examined: (1) *Industrial life insurance*, and (2) *Industrial combination insurance* which gives sick, accident, and death benefits. In the District of Columbia companies that conduct the second kind of industrial insurance do not to any great extent conduct the first kind also. These two kinds of insurance will be considered separately.

INDUSTRIAL LIFE INSURANCE.

It has been seen that the total number of industrial policies of all kinds in force in the District of Columbia at the end of 1903 was 207,596; that the holders of these policies paid during the year as premiums \$1,024,753.09; and that the amount of industrial insurance in force on December 31, 1903, was \$24,127,215.84. In round figures it may be said that \$20,000 is paid every week by the working people of Washington for keeping in force over 200,000 policies which carry protection to the amount of over \$24,000,000. The amount of this insurance that is in life policies only and the amount in combination policies is shown in the following table:

NUMBER OF POLICIES AND INSURANCE IN FORCE DECEMBER 31, 1903, AND PREMIUMS PAID IN DURING YEAR FOR COMPANIES ISSUING LIFE POLICIES ONLY AND FOR COMPANIES ISSUING COMBINATION POLICIES.

[From the Report of the Department of Insurance of the District of Columbia for the year ending December 31, 1903. In the Report of the Department of Insurance the premiums on 3,728 ordinary policies for \$3,152,619, issued by companies writing both ordinary and industrial insurance, were not separately reported. Using as a basis the average premium on all ordinary insurance for which the premiums paid were reported, the premiums on this \$3,152,619 of ordinary insurance have been estimated at \$116,000 and deducted to ascertain the premiums paid in on industrial life policies during year as shown in this table.]

Kind of insurance.	Premiums paid in during year.	Policies in force December 31, 1903.	
		Number.	Amount.
Industrial life insurance.....	\$864,039.61	178,675	\$23,000,129.92
Industrial combination insurance (combining sick, accident, and death benefits).....	160,693.48	28,921	1,127,085.92
Total.....	1,024,753.09	207,596	24,127,215.84

It will be seen from the foregoing table that the great bulk of the industrial insurance is in the companies which issue life policies only. Thus, 86 per cent of all the industrial policies in force at the end of 1903 in the District of Columbia was in these companies; of the premiums paid in during 1903 on industrial policies 84 per cent was to these companies; and the insurance in force carried by these companies represented 95 per cent of all the industrial insurance.

In Washington practically all of the business of industrial insurance for payment of benefits in case of death only is done by five companies, all of which carry on a business outside the District. Two of these companies count their agents by the thousands, their policy holders by the millions, and their premium receipts by the tens of millions. One of the companies employs 250 agents in Washington alone. The manner in which the industrial life business in the District is distributed among the several companies is indicated in the following table:

NUMBER OF INDUSTRIAL LIFE POLICIES AND INSURANCE IN FORCE DECEMBER 31, 1903, AND PREMIUMS PAID IN DURING YEAR FOR EACH COMPANY.

[From the Report of the Department of Insurance of the District of Columbia for the year ending December 31, 1903. In the Report of the Department of Insurance the premiums on 3,721 ordinary policies for \$3,147,869 issued by Company No. 1 and 7 ordinary policies for \$4,750 issued by Company No. 5 were reported in combination with the premiums on industrial policies. Using as a basis the average premium on all ordinary insurance for which the premiums paid were reported, the premiums on this ordinary insurance have been estimated at \$115,825 and \$175, respectively, and deducted to ascertain the premiums on industrial life policies as shown in this table.]

Company.	Premiums paid in during year.	Policies in force December 31, 1903.	
		Number.	Amount.
Company No. 1.....	\$541,681.88	109,052	\$15,039,999.00
Company No. 2.....	147,269.44	31,836	3,867,895.00
Company No. 3.....	83,134.70	21,048	2,411,951.00
Company No. 4.....	45,985.23	10,043	1,229,011.00
Company No. 5.....	45,988.36	6,696	451,273.92
Total.....	864,059.61	178,675	23,000,129.92

Like the ordinary companies, the industrial companies offer a great variety of policies. There is the industrial whole-life policy, the industrial endowment policy, the industrial paid-up policy, the industrial infantile policy.

INDUSTRIAL WHOLE-LIFE POLICY.

This policy corresponds quite closely in character to the nonparticipating policy whose rates were stated (page 785) in connection with the subject of ordinary insurance. Just as the rates for ordinary insurance are almost identical in the different companies, so an almost perfect equality of rates exists among the several industrial life companies. In respect to whole-life policies this is shown by the following table:

AMOUNT OF INSURANCE GIVEN BY FIVE COMPANIES DOING BUSINESS ON THE INDUSTRIAL PLAN IN THE DISTRICT OF COLUMBIA, THE WEEKLY PREMIUM BEING 5 CENTS AND CONTINUING THRUOUT THE WHOLE LIFE OF THE INSURED.

[A weekly premium of 10 cents doubles the amount of the policy. The full amount of the policy as stated below is paid only in case of death after the policy has been in force for one year.]

Age at next birthday (years).	Amount of policy.	Age at next birthday (years).	Amount of policy.	Age at next birthday (years).	Amount of policy.
10.....	\$120	27.....	\$72	44.....	\$44
11.....	118	28.....	71	45.....	42
12.....	116	29.....	69	46.....	41
13.....	112	30.....	67	47.....	39
14.....	108	31.....	66	48.....	38
15.....	a 103	32.....	64	49.....	37
16.....	100	33.....	62	50.....	35
17.....	94	34.....	60	51.....	34
18.....	92	35.....	59	52.....	32
19.....	b 89	36.....	57	53.....	31
20.....	c 87	37.....	55	54.....	30
21.....	d 84	38.....	54	55.....	28
22.....	e 82	39.....	52	56.....	27
23.....	80	40.....	50	57.....	26
24.....	78	41.....	49	58.....	25
25.....	76	42.....	47	59.....	23
26.....	74	43.....	45	60.....	22

a Amount of policy issued at age 15 by one company is \$104.

b Amount of policy issued at age 19 by one company is \$90.

c Amount of policy issued at age 20 by one company is \$88.

d Amount of policy issued at age 21 by one company is \$86.

e Amount of policy issued at age 22 by one company is \$84.

f Amount of policy issued at age 28 by one company is \$70.

The rates of the various industrial life companies are practically identical. They differ widely, however, from those charged for ordinary insurance, and very useful comparisons may be instituted between industrial rates and ordinary rates. By taking the rates given on this page and on page 785 and computing the amount of protection the policy holder gets for each dollar expended, the figures shown in the following table are obtained. In this table the amount of protection purchasable with an annual premium expenditure of \$1 made in the industrial way (in weekly payments) may be compared with the amount of protection purchasable with the same premium expenditure made in the ordinary way (in annual payments). The table shows also the percentage of difference which exists between the amounts.

AMOUNT OF INDUSTRIAL OR OF ORDINARY NONPARTICIPATING INSURANCE PURCHASABLE FOR EACH \$1 OF THE ANNUAL PREMIUM EXPENDITURE, AND PER CENT OF EXCESS OF ORDINARY OVER INDUSTRIAL INSURANCE.

[The full amount of the industrial insurance as stated below is paid only in case of death after the policy has been in force for one year.]

Age of insured (years).	Insurance purchasable for each \$1 of the annual premium expenditure.			Age of insured (years).	Insurance purchasable for each \$1 of the annual premium expenditure.		
	Industrial.	Ordinary.	Per cent of excess of ordinary over industrial.		Industrial.	Ordinary.	Per cent of excess of ordinary over industrial.
21	\$32.31	\$65.36	102	41	\$18.85	\$36.98	96
22	31.54	63.98	103	42	18.08	35.66	97
23	30.77	62.46	103	43	17.31	34.34	98
24	30.00	61.09	104	44	16.92	33.05	95
25	29.23	59.67	104	45	16.15	31.78	97
26	28.46	58.21	105	46	15.77	30.52	94
27	27.69	56.72	105	47	15.00	29.30	95
28	27.31	55.31	103	48	14.62	28.09	92
29	26.54	53.85	103	49	14.23	26.91	89
30	25.77	52.41	103	50	13.46	25.75	91
31	25.38	50.94	101	51	13.08	24.62	88
32	24.62	49.53	101	52	12.31	23.53	91
33	23.85	48.10	102	53	11.92	22.46	88
34	23.08	46.69	102	54	11.54	21.41	86
35	22.69	45.25	99	55	10.77	20.42	90
36	21.92	43.84	100	56	10.38	19.41	87
37	21.15	42.47	101	57	10.00	18.46	85
38	20.77	41.07	98	58	9.62	17.55	82
39	20.00	39.68	98	59	8.85	16.67	88
40	19.23	38.31	99	60	8.46	15.83	87

The foregoing table shows that the workingman of 30 years of age, for example, who must purchase his insurance by weekly payments, obtains only \$25.77 of protection for each dollar that he pays in, while the well-to-do policy holder of the same age, who can purchase his insurance by annual payments, obtains \$52.41 of protection, or more than twice as much.

PAID-UP VALUES AND CASH-SURRENDER VALUES OF INDUSTRIAL LIFE POLICIES.

A majority of the industrial companies doing business in the District make a provision for a paid-up policy after the premiums have been paid for a certain period. Thus one company has in its policies the following provisions:

If after the payment of the weekly premium hereon for five or more years, this policy shall become void by reason of default in the payment of premiums, the company agrees to issue a nonparticipating paid-up policy for an amount computed according to the first table below, the said paid-up policy to be continued in force for the full expectation of life of the insured, at the date of issue of the paid-up policy, according to the second table below, provided that this policy shall be legally surrendered to the company and application for said paid-up policy made in writing on the blank obtainable from the company for that purpose within eight weeks after said default.

It is not necessary to give the tables referred to above in full but
 still profitable to paid-up values of a typical ordinary.

nonparticipating policy with those guaranteed in the industrial life policy from which the above provisions have been quoted. Below is a table which makes such a comparison easy. Two columns show the paid-up values guaranteed for each \$1 of annual premiums on the industrial life and on the ordinary nonparticipating policy, the policy issuing at the age of 35 years. A third column gives the per cent of paid-up insurance guaranteed by the ordinary policy in excess of that guaranteed by the industrial policy for each \$1 of annual premium.

PAID-UP VALUE OF AN INDUSTRIAL LIFE POLICY AND OF AN ORDINARY NONPARTICIPATING POLICY ISSUED AT THE AGE OF 35.

After premium has been paid—	Paid-up insurance guaranteed for each \$1 of annual premium expenditure.		
	Industrial insurance.	Ordinary nonparticipating insurance.	Per cent of excess of ordinary over industrial.
5 years.....	\$3.33	\$5.51	65
6 years.....	4.01	6.74	68
7 years.....	4.69	7.93	69
8 years.....	5.40	9.25	71
9 years.....	6.08	10.57	74
10 years.....	6.76	11.89	76
15 years.....	10.09	17.22	71
20 years.....	13.24	21.94	66

Most of the industrial policies provide for a cash-surrender value. The accompanying table gives the cash-surrender value guaranteed by one of the policies of a company doing a large industrial business in the District. For purposes of comparison a typical exhibit of the cash-surrender values guaranteed by the same company on an ordinary nonparticipating policy is also given.

CASH-SURRENDER VALUE OF AN INDUSTRIAL LIFE POLICY AND OF AN ORDINARY NONPARTICIPATING POLICY AFTER PREMIUMS HAVE BEEN PAID FOR 20 YEARS.

Age (years).	Cash-surrender value at end of 20 years.			Age (years).	Cash-surrender value at end of 20 years.		
	Industrial (weekly premium 10 cents).	Ordinary (proportioned to an annual premium of \$5.20).	Per cent of excess of ordinary over industrial.		Industrial (weekly premium 10 cents).	Ordinary (proportioned to an annual premium of \$5.20).	Per cent of excess of ordinary over industrial.
21.....	\$33	\$53.26	61	41.....	\$38	\$90.73	60
22.....	34	54.19	59	42.....	38	90.39	59
23.....	34	54.79	61	43.....	38	90.83	57
24.....	35	55.55	59	44.....	38	91.31	56
25.....	35	56.47	61	45.....	37	91.86	58
26.....	35	57.03	63	46.....	37	92.86	56
27.....	36	57.75	60	47.....	36	93.96	58
28.....	37	58.36	58	48.....	36	94.10	56
29.....	37	58.86	59	49.....	36	95.05	53
30.....	37	59.47	61	50.....	35	95.96	54
31.....	38	59.97	58	51.....	35	97.81	51
32.....	38	60.36	59	52.....	33	97.62	56
33.....	38	60.66	60	53.....	33	98.30	52
34.....	38	61.03	61	54.....	32	99.03	53
35.....	39	61.29	57	55.....	31	97.66	54
36.....	39	61.26	57	56.....	30	96.36	55
37.....	39	61	57	57.....	30	95.03	50
38.....	39				29	93.68	51
39.....					27	92.33	57
40.....					27	91.04	52

INDUSTRIAL INFANTILE POLICY.

In very recent years the industrial companies have undertaken to extend the benefits of insurance to young children. The number of infantile policies can not be ascertained accurately from insurance reports, but special investigation covering a limited region shows that about one-fourth of all industrial policies are written upon the lives of children under 10 years of age.

In the policies of the industrial life companies there is an infantile clause which specifies the benefits that are to arise when death occurs within the infantile period, that is, between the ages of 1 and 10 (sometimes 12). The following table shows the amount of the death benefit usually guaranteed in an industrial infantile policy for a weekly premium of 10 cents:

DEATH BENEFITS PAYABLE ON AN INDUSTRIAL INFANTILE POLICY FOR A WEEKLY PREMIUM OF 10 CENTS.

Age at next birth- day (years).	Amount payable if death occurs after the policy has been in force—											
	Under 3 months	3 months or under 6 months.	6 months or under 9 months.	9 months or under 1 year.	1 year or un- der 2 years.	2 years or un- der 3 years.	3 years or un- der 4 years.	4 years or un- der 5 years.	5 years or un- der 6 years.	6 years or un- der 7 years.	7 years or un- der 8 years.	8 years.
2.....	\$16	\$20	\$24	\$30	\$34	\$40	\$48	\$58	\$110	\$160	\$200	\$280
3.....	18	22	28	34	40	48	58	102	150	200	240	.....
4.....	20	26	32	40	48	58	94	140	200	240	.....	.....
5.....	22	28	36	48	58	86	130	190	240	.....	.....	.....
6.....	24	32	44	58	78	120	180	240	.....	.....	.....	.....
7.....	28	38	52	70	110	170	240	.....	.....	.....	.....	.....
8.....	32	44	70	100	160	240	.....	.....	.....	.....	.....	.....
9.....	40	56	100	150	240	.....	.....	.....	.....	.....	.....	.....

For a weekly premium of 5 cents death benefits of **half the amounts** stated in the foregoing table are paid.

YOUNG PEOPLE'S ENDOWMENT POLICY.

Besides whole-life infantile policies, some of the industrial companies issue children's endowment policies, the nature of which may be learned from the table which follows. Under the form of policy to which this table relates the endowment term is, in all cases, twenty years, and the amount of the endowment is \$50 for each 5 cents of weekly premium, the amount being due and payable twenty years from date of issue of policy:

DEATH BENEFITS PAYABLE ON AN INDUSTRIAL 20-YEAR ENDOWMENT POLICY IF DEATH OCCURS DURING THE ENDOWMENT PERIOD, FOR A WEEKLY PREMIUM OF 5 CENTS.

Age at next birthday (years).	Amount payable if death occurs during the—									
	1st year.	2d year.	3d year.	4th year.	5th year.	6th year.	7th year.	8th year.	9th year.	10th year.
2.....	\$8.00	\$10.00	\$12.00	\$14.00	\$16.00	\$18.00	\$20.00	\$22.50	\$25.00	\$27.50
3.....	9.00	11.00	13.00	15.00	17.00	19.00	21.00	23.00	25.00	27.50
4.....	10.00	12.00	14.00	16.00	18.00	20.00	22.00	24.00	26.00	28.00
5.....	11.00	13.00	15.00	17.00	19.00	21.00	23.00	25.00	27.00	29.00
6.....	12.00	14.00	16.00	18.00	20.00	22.00	24.00	26.00	28.00	30.00
7.....	13.00	15.00	17.00	19.00	21.00	23.00	25.00	27.00	29.00	31.00
8.....	14.00	16.00	18.00	20.00	22.00	24.00	26.00	28.00	30.00	32.00
9.....	15.00	17.00	19.00	21.00	23.00	25.00	27.00	29.00	31.00	33.00

Age at next birthday (years).	Amount payable if death occurs during the—									
	11th year.	12th year.	13th year.	14th year.	15th year.	16th year.	17th year.	18th year.	19th year.	20th year.
2.....	\$30.00	\$32.50	\$35.00	\$37.50	\$40.00	\$45.00	\$50.00	\$50.00	\$50.00	\$50.00
3.....	30.00	32.50	35.00	37.50	40.00	45.00	50.00	50.00	50.00	50.00
4.....	30.00	32.50	35.00	37.50	40.00	45.00	50.00	50.00	50.00	50.00
5.....	31.00	33.00	35.00	37.50	40.00	45.00	50.00	50.00	50.00	50.00
6.....	32.00	34.00	36.00	38.00	40.00	45.00	50.00	50.00	50.00	50.00
7.....	33.00	35.00	37.50	40.00	42.50	45.00	50.00	50.00	50.00	50.00
8.....	34.00	36.00	38.00	40.00	42.50	45.00	50.00	50.00	50.00	50.00
9.....	35.00	37.00	39.00	40.00	42.50	45.00	50.00	50.00	50.00	50.00

It will be noticed that during the infantile period the full face value of the policy does not accrue, either in the case of a whole-life or an endowment policy. In all the infantile contracts the amount to be paid is calculated upon the age of the child at the time of death.

CHARACTERISTIC FEATURES OF INDUSTRIAL LIFE POLICIES.

As a rule the terms of the regular industrial life policies are liberal. The amount of the benefit is to be paid promptly upon the death of the insured. Sometimes it is to be paid within twenty-four hours after death is proven. All the companies insert a provision like this:

If the insured shall die within six calendar months from the date hereof [the date of the execution of the policy] the company will pay only one-fourth of this sum [the amount of the policy]. If the insured shall die after six months and within one year from the date hereof the company will pay only one-half of this sum. After one year from its date the policy will be in force for its full amount.

The following privileges and concessions are found in most of the industrial life policies issued by the regular industrial companies:

1. If the terms of the policy are not satisfactory or if its conditions are not accepted and agreed to, the policy may be surrendered for cancellation within a short period, and if surrendered the premiums already paid are refunded.

2. The policies are usually incontestable after two years—sometimes after one year.

3. When the death of the insured occurs while a premium is in arrears not exceeding ^{two} weeks the company usually agrees to pay

the policy, notwithstanding the arrears. Of course the amount paid is decreased by the amount of the arrears.

4. Should the policy become void in consequence of nonpayment of premiums it may be renewed if not more than 52 premiums are due, upon payment of all arrears and the presentation to the company of evidence that the insured is in sound health.

5. The insured may change the beneficiary at any time. .

6. The insured may engage in any occupation except in the military or naval service in time of actual war.

LAPSES OF INDUSTRIAL LIFE POLICIES.

A most important topic in connection with the cost of industrial insurance is lapses. Whatever may be the effect of a lapse upon the finances of the insurance company there can hardly be any question as to the effect upon the person purchasing insurance; a lapse must be regarded as involving a loss. The industrial policy, it seems, comes easy and goes easy. In the District of Columbia during 1903 there were, according to the report of the department of insurance, more than 30,000 lapses of industrial policies, distributed among the several regular industrial companies as follows:

Company No. 1.....	12, 976
Company No. 2.....	4, 108
Company No. 3.....	8, 661
Company No. 4.....	1, 541
Company No. 5.....	3, 285
Total.....	30, 571

CONCLUSIONS AS TO THE COST OF REGULAR INDUSTRIAL LIFE INSURANCE.

The greatest of the industrial companies claims the following advantages for industrial insurance:

It is especially adapted to persons of moderate means.

It costs 5 cents per week and upward.

No initiation fee is charged.

No increase of payment is required.

Premiums are collected weekly at the homes of policy holders.

All ages from 2 next birthday to 70 are taken.

Claims are payable promptly at death.

Males and females are taken at the same cost.

Only healthful lives are insured.

The nine advantages urged above may be reduced to one: Industrial insurance enables the poorer classes to pay for their insurance weekly in small amounts. This substantial and cogent advantage gives to industrial insurance all its vigor and prosperity. This convenience of payment, however, is purchased at great cost. An examination of the foregoing tables illustrates strikingly the general truth, *which the poor are often made to realize so keenly, that their dollar*

has much less purchasing power than that of the well to do. Wherever the industrial rates are compared with the ordinary rates the former are found to be much higher than the latter. In the matter of whole-life insurance industrial rates are practically 100 per cent higher than the ordinary rates. The paid-up values of ordinary policies are from 65 per cent to 76 per cent higher than those guaranteed in industrial policies and a similar difference exists between the cash-surrender values of the two kinds of policies.

INDUSTRIAL COMBINATION (SICKNESS, ACCIDENT, AND LIFE) INSURANCE.

The industrial insurance issued by the companies that have thus far been discust, the companies doing a life business only, constitutes over nine-tenths of all industrial insurance in force in the District of Columbia. But the insurance written by the other class of industrial companies (the assessment industrial companies) has an importance far greater than would appear from an examination of the amount of insurance in force, for the reason that these companies draw their premium receipts almost entirely from the poorer classes and especially from the colored wage-earners of the common labor and servant classes. There are in force in the District of Columbia nearly 30,000 policies which in addition to insuring the life carry an indemnity for disability by accident and by disease. The companies which sell this kind of insurance are in nearly every instance of the assessment type. They are not compelled by law to carry a reserve, and some of them have no substantial funds of any kind but meet their losses with the premiums collected from week to week. Others, however, have reserve funds sufficient, in the opinion of the managers, to meet all probable obligations. These assessment companies should not be confounded with the fraternal beneficial associations which furnish insurance to their members on a purely cooperative plan, all the money that is paid into the treasury, minus a small sum for clerk hire and other necessary expenses, being distributed to the members or their beneficiaries. The assessment companies engaged in the business of industrial insurance are, on the other hand, commercial organizations conducting the business for profit.

The absence of a reserve in an assessment company is supposed to be offset by the flexibility of the premium. The terms of the contract of an assessment policy assume the existence of an association, the members of which have agreed to make good the losses as they arise. It is not, therefore, the managers of an assessment company that are liable for the indemnities, but the policy holders themselves. This is plainly set forth in the policy of every assessment company. The following clauses extracted from the policies of several assessment

industrial companies doing business in the District will illustrate the feature of the assessment contract:

1. The association is not required by law to maintain a reserve. The association reserves the privilege to make additional assessments in case the weekly payments are not sufficient to meet all claims.

2. This insurance is granted in consideration of the premium hereinbefore stated, which shall be paid to the company on or before every Monday during the continuance of this contract, and of any additional sum that may be required.

3. That in case of epidemic sickness, numerous accidents, or widespread increase of mortality, or when the weekly payments are not sufficient to meet all claims, the board of directors of this association reserve the right to levy additional weekly assessments; and whenever assessments are levied and members are duly notified of the same, failure to pay such assessments after a period of thirty days from date of notice shall suspend such member from benefits until such extra assessments are paid. These extra assessments shall not be levied until after the assets of the association, exclusive of the capital stock, are exhausted.

4. The insured hereby agrees to pay two semiannual assessments not to exceed the weekly premium paid on the policy, and in the event of unusual casualties, sickness, and mortality any other assessment that may be levied by the board of directors.

5. The board of trustees shall have the power to levy extra assessments when needed or raise the rate if necessary.

Altho the right of the assessment companies to levy all necessary sums is unquestionable, nevertheless, as a matter of practise, extra assessments are seldom called for. The assessment companies must compete with the regular industrial companies, and a company which should habitually levy extra assessments would soon find its business disappearing. The policy clauses giving the company the right to levy additional assessments have an important legal significance, but they do not materially affect the premiums paid. A 5-cent weekly premium in an assessment company means a yearly premium of \$2.60, and seldom more than that.

The real difference between the business conducted by the assessment industrial company and that conducted by the regular industrial company resides in the nature of the insurance. The regular industrial company insures against death, and against death alone. The assessment industrial policy offers indemnity for sickness and accident as well as insurance upon death. Theoretically, a more comprehensive form of insurance could not well be devised.

Four of the assessment industrial companies of the District issue life as well as combination policies, yet the great bulk of the assessment business consists of insurance carrying sick, accident, and death benefits. This business is done almost entirely among the poorer classes and especially among the colored wage-earners of the common labor and servant classes, and for this reason has an importance much

greater than is indicated by the amount of insurance in force. The business is distributed among twelve companies in the manner shown in the following table:

NUMBER OF POLICIES AND AMOUNT OF INDUSTRIAL COMBINATION (SICK, ACCIDENT, AND LIFE) INSURANCE IN FORCE DECEMBER 31, 1903, AND PREMIUMS AND ASSESSMENTS COLLECTED DURING YEAR.

Company.	Premiums and assessments collected during year.	Policies in force December 31, 1903.	
		Number.	Amount.
Company No. 6.....	\$41,777.47	6,104	\$143,207.50
Company No. 7.....	a 27,073.74	a 5,301	a 246,465.75
Company No. 8.....	a 17,696.20	a 3,259	a 129,722.00
Company No. 9.....	14,304.91	2,796	97,800.00
Company No. 10.....	a 12,404.48	a 2,624	a 102,787.50
Company No. 11.....	a 9,065.05	a 2,105	a 81,007.42
Company No. 12 (b).....	24,087.70	2,097	182,400.00
Company No. 13.....	7,435.29	2,097	60,089.50
Company No. 14.....	2,838.76	1,127	61,416.00
Company No. 15.....	283.38	612	3,700.25
Company No. 16.....	2,696.80	554	15,365.00
Company No. 17.....	1,059.70	245	3,065.00
Total.....	160,693.48	28,921	1,127,085.92

a Includes some policies for payment of death benefits only.

b Premiums paid monthly.

It has been seen that the premium rates for regular industrial insurance on the whole-life plan are pretty much the same in all the companies. Where the insurance policy carries the triple indemnity against sickness, accident, and death the charges of one company differ widely from those of another. The rates charged by the several assessment industrial companies of the District selling combination insurance may be learned from the tables following. It will be observed that the sick and accident indemnities in any given schedule are always the same. It will be noticed also that in all the companies the age element is treated very broadly while in one company it is ignored altogether.

SCHEDULE OF PREMIUMS AND BENEFITS OF COMPANY NO. 6.

Weekly premium (cents).	Age at next birthday (years).	Sick and accident benefits paid.		Death benefit.
		Amount per week.	Number of weeks.	
5.....	3 to 40	\$1.25	a 12	\$12.50
5.....	41 to 50	1.00	a 12	10.00
5.....	51 to 60	.75	a 12	7.50
10.....	10 to 40	2.50	a 12	25.00
10.....	41 to 50	2.00	a 12	20.00
10.....	51 to 60	1.50	a 12	15.00
15.....	15 to 40	3.75	a 12	37.50
15.....	41 to 50	3.00	a 12	30.00
15.....	51 to 60	2.25	a 12	22.50
20.....	15 to 40	5.00	a 12	50.00
20.....	41 to 50	4.00	a 12	40.00
20.....	51 to 60	3.00	a 12	30.00
25.....	20 to 40	6.25	a 12	62.00
25.....	41 to 50	5.00	a 12	50.00
25.....	51 to 60	3.75	a 12	37.00

a For accident, 7 weekly benefits only.

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SCHEDULE OF PREMIUMS AND BENEFITS OF COMPANY NO. 7.

Weekly premium (cents).	Age at next birthday (years).	Sick and accident benefits paid.		Death benefits.
		Amount per week.	Number of weeks.	
	2 to 40	\$1.25	10	\$12.50
	41 to 50	1.00	10	10.00
	51 to 60	.75	10	7.50
	10 to 40	2.50	10	25.00
	41 to 50	2.00	10	20.00
	51 to 60	1.50	10	15.00
	15 to 40	3.75	10	37.50
	41 to 50	3.00	10	30.00
	51 to 60	2.25	10	22.50
	18 to 40	5.00	10	50.00
	41 to 50	4.00	10	40.00
	51 to 60	3.00	10	30.00
	18 to 40	6.00	10	60.00
	41 to 50	5.00	10	50.00
	51 to 60	3.75	10	37.50

SCHEDULE OF PREMIUMS AND BENEFITS OF COMPANY NO. 8.

	4 to 42	\$1.25	10	\$12.50
	42 to 48	1.00	10	10.00
	48 to 55	.75	10	7.50
	55 to 60	.50	10	5.00
	8 to 42	2.50	10	25.00
	42 to 48	2.00	10	20.00
	48 to 55	1.50	10	15.00
	55 to 60	1.00	10	10.00
	15 to 42	3.75	10	37.50
	42 to 48	3.00	10	30.00
	48 to 55	2.25	10	22.50
	55 to 60	1.50	10	15.00
	18 to 42	5.00	10	50.00
	42 to 48	4.00	10	40.00
	48 to 55	3.00	10	30.00
	55 to 60	2.00	10	20.00

SCHEDULE OF PREMIUMS AND BENEFITS OF COMPANY NO. 9.

5.	2 to 40	\$1.25	a 10	\$12.50
5.	41 to 50	1.00	a 10	10.00
10.	6 to 40	2.50	a 10	25.00
10.	41 to 50	2.00	a 10	20.00
15.	10 to 40	3.75	a 10	37.50
15.	41 to 50	3.00	a 10	30.00
20.	15 to 40	5.00	a 10	50.00
20.	41 to 50	4.00	a 10	40.00
25.	18 to 40	6.25	a 10	62.50
25.	41 to 50	5.00	a 10	50.00
30.	20 to 40	7.00	a 10	70.00
30.	41 to 50	6.00	a 10	60.00
35.	20 to 40	8.00	a 10	80.00
35.	41 to 50	7.00	a 10	70.00
40.	20 to 40	8.00	a 10	80.00
50.	20 to 40	10.00	a 10	100.00

SCHEDULE OF PREMIUMS AND BENEFITS OF COMPANIES NO. 10 AND NO. 11.

5.	2 to 40	\$1.25	b 10	\$12.50
5.	41 to 50	1.00	b 10	10.00
5.	51 to 55	.75	b 10	7.50
10.	8 to 40	2.50	b 10	25.00
10.	41 to 50	2.00	b 10	20.00
10.	51 to 55	1.50	b 10	15.00
15.	15 to 40	3.75	b 10	37.50
15.	41 to 50	3.00	b 10	30.00
15.	51 to 55	2.25	b 10	22.50
20.	18 to 40	5.00	b 10	50.00
20.	41 to 50	4.00	b 10	40.00
20.	51 to 55	3.00	b 10	30.00
25.	18 to 40	6.00	b 10	60.00
25.	41 to 50	5.00	b 10	50.00
25.	51 to 55	3.75	b 10	37.50

a For accident, 5 weekly benefits only.

b For sickness 12 and for accident 7 weekly benefits paid by company No. 10

COST OF INDUSTRIAL INSURANCE.

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SCHEDULE OF PREMIUMS AND BENEFITS OF COMPANY NO. 13.

Weekly premium (cents).	Age at next birthday (years).	Sick and accident benefits paid.		Death benefits.
		Amount per week.	Number of weeks.	
5.....	4 to 35	\$1.25	10	\$14.00
5.....	36 to 45	1.00	10	12.50
5.....	46 to 60	1.00	10	10.00
10.....	8 to 35	2.50	10	28.00
10.....	36 to 45	2.25	10	25.00
10.....	46 to 60	2.00	10	20.00
15.....	12 to 35	3.75	10	40.00
15.....	36 to 45	3.25	10	35.00
15.....	46 to 50	3.00	10	30.00
20.....	15 to 35	5.00	10	52.00
20.....	36 to 45	4.50	10	45.00
20.....	46 to 50	4.00	10	40.00
25.....	18 to 35	6.00	10	70.00
25.....	36 to 45	6.00	10	60.00
25.....	46 to 50	5.00	10	50.00
30.....	20 to 35	7.00	10	80.00
30.....	36 to 40	6.50	10	75.00
30.....	41 to 45	6.00	10	60.00

SCHEDULE OF PREMIUMS AND BENEFITS OF COMPANY NO. 14 FOR ALL AGES.

Weekly premium (cents).	Sick and accident benefits paid.		Death benefit.
	Amount per week.	Number of weeks.	
5.....	\$1.50	(a)	\$15.00
10.....	3.25	(a)	35.00
15.....	4.00	(a)	45.00
20.....	4.75	(a)	55.00
25.....	5.25	(a)	65.00

SCHEDULE OF PREMIUMS AND BENEFITS OF COMPANY NO. 15.

Weekly premium (cents).	Age at next birthday (years).	Sick and accident benefits paid.		Death benefit.
		Amount per week.	Number of weeks.	
5.....	2 to 9	\$1.25	10	\$12.00
5.....	10 to 39	1.50	10	15.00
5.....	40 to 49	1.25	10	12.00
5.....	50 to 59	.75	10	8.00
10.....	2 to 9	2.50	10	25.00
10.....	10 to 39	3.00	10	30.00
10.....	40 to 49	2.50	10	25.00
10.....	50 to 59	1.50	10	15.00
15.....	2 to 9	3.75	10	37.00
15.....	10 to 39	4.50	10	45.00
15.....	40 to 49	3.75	10	37.00
15.....	50 to 59	2.25	10	23.00

SCHEDULE OF PREMIUMS AND BENEFITS OF COMPANY NO. 16.

Weekly premium (cents).	Age at next birthday (years).	Sick and accident benefits paid.		Death benefit.
		Amount per week.	Number of weeks.	
5.....	1 to 40	\$1.25	(b)	\$20.00
5.....	41 to 50	1.00	(b)	12.50
5.....	51 to 60	.75	(b)	10.00
10.....	1 to 40	2.50	(b)	40.00
10.....	41 to 50	2.00	(b)	25.00
10.....	51 to 60	1.50	(b)	20.00
15.....	15 to 40	3.75	(b)	45.00
15.....	41 to 50	3.00	(b)	37.50
15.....	51 to 60	2.25	(b)	30.00
20.....	18 to 40	5.00	(b)	60.00
20.....	41 to 50	4.00	(b)	50.00
20.....	51 to 60	3.00	(b)	40.00
25.....	18 to 40	6.00	(b)	75.00
25.....	41 to 50	5.00	(b)	60.00
25.....	51 to 60	3.75	(b)	45.00

a Five weekly benefits guaranteed, followed by half benefits unless permanently disabled.

b Four weekly benefits guaranteed, followed by half benefits unless permanently disabled.

A cursory examination of the foregoing tables shows that the cost of industrial combination insurance is by no means a fixed quantity. How greatly the cost in one company differs from that in another may be learned from the two tables which immediately follow. In the first of these tables is a parallel statement of the maximum amounts of sick and accident benefits guaranteed in any one year by the several companies at certain ages for a weekly premium of 5 cents. The table also shows the number of weekly indemnities for which each company is liable.

NUMBER AND TOTAL AMOUNT OF WEEKLY SICK AND ACCIDENT BENEFITS PAID IN ANY ONE YEAR FOR A WEEKLY PREMIUM OF 5 CENTS, BY THE ASSESSMENT INDUSTRIAL COMPANIES ISSUING COMBINATION POLICIES.

Company.	Number of weekly benefits paid.	Total benefits paid in any one year on policy issued at—								
		20 years.	25 years.	30 years.	35 years.	40 years.	45 years.	50 years.	55 years.	60 years.
Company No. 6...	a 12	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$12.00	\$12.00	\$9.00	\$9.00
Company No. 7...	10	12.50	12.50	12.50	12.50	12.50	10.00	10.00	7.50	7.50
Company No. 8...	10	12.50	12.50	12.50	12.50	12.50	10.00	7.50	5.00	5.00
Company No. 9...	b 10	12.50	12.50	12.50	12.50	12.50	10.00	10.00	-----	-----
Company No. 10...	a 12	15.00	15.00	15.00	15.00	15.00	12.00	12.00	9.00	-----
Company No. 11...	10	12.50	12.50	12.50	12.50	12.50	10.00	10.00	7.50	-----
Company No. 13...	10	12.50	12.50	12.50	12.50	10.00	10.00	10.00	10.00	10.00
Company No. 14...	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
Company No. 15...	10	15.00	15.00	15.00	15.00	12.50	12.50	7.10	7.10	-----
Company No. 16...	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)
Company No. 17...	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)

a Seven weekly benefits allowed for accident.

b Five weekly benefits allowed for accident.

c Five weekly benefits of \$1.50 each guaranteed, followed by half benefits unless disability is pronounced permanent.

d Four weekly benefits of \$1.25 each guaranteed, followed by half benefits unless pronounced incurable by the company's physician.

e Number of weekly benefits not specified in the contracts, but left to discretion of the company.

The next table compares in like manner the funeral or death benefits guaranteed in the policies of the several assessment industrial companies for the weekly premium of 5 cents. As a rule the death benefit is equal to the weekly sick benefit multiplied by the maximum number of benefits guaranteed, but the rule does not always hold good. It is a custom among these companies to keep the maximum sick and accident liability about equal to the death benefit, and, as will be seen later, the latter liability is frequently substituted for the former.

DEATH BENEFIT PAID FOR A WEEKLY PREMIUM OF 5 CENTS BY THE VARIOUS ASSESSMENT INDUSTRIAL COMPANIES ON COMBINATION POLICIES.

Company.	Age at issue.								
	20 years.	25 years.	30 years.	35 years.	40 years.	45 years.	50 years.	55 years.	60 years.
Company No. 6.	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$10.00	\$10.00	\$7.50	\$7.50
Company No. 7.	12.50	12.50	12.50	12.50	12.50	10.00	10.00	7.50	7.50
Company No. 8.	12.50	12.50	12.50	12.50	12.50	10.00	7.50	7.50	5.00
Company No. 9.	12.50	12.50	12.50	12.50	12.50	10.00	10.00		
Company No. 10.	12.50	12.50	12.50	12.50	12.50	10.00	10.00	7.50	
Company No. 11.	12.50	12.50	12.50	12.50	12.50	10.00	10.00	7.50	
Company No. 13.	14.00	14.00	14.00	14.00	12.50	12.50	10.00	10.00	10.00
Company No. 14.	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
Company No. 15.	15.00	15.00	15.00	15.00	12.00	12.00	8.00	8.00	
Company No. 16.	20.00	20.00	20.00	20.00	20.00	12.50	12.50	10.00	10.00
Per cent of highest above lowest.	60	60	60	60	67	80	100	100	200

The two preceding tables enable us to institute comparisons between the charges made by the several assessment companies which sell combination insurance on the industrial plan, and they show that the price varies in a remarkable manner. For the same premium the total sick and accident benefits allowed in one company are sometimes twice and the death benefits three times what they are in another.

It is interesting to compare the cost of combination insurance when paid for in weekly payments with its cost when paid for in the ordinary way. Fortunately a comparison of this kind can be made without entering the domain of theory, for it happens that there is in the District a company doing a large regular business which sells for an annual premium a policy carrying sick, accident, and death benefits. The cost of a policy of this kind is here given:

COST OF COMBINATION (SICK, ACCIDENT, AND LIFE) INSURANCE IN A REGULAR COMPANY WITH PREMIUM PAID IN ONE ANNUAL PAYMENT.

Age (years).	Yearly premium.	Maximum accident benefit (\$5 weekly for 200 weeks).	Maximum sick benefit (\$5 weekly for 26 weeks).	Death benefit.
20.....	\$24.37	\$1,000	\$130	\$1,000
25.....	26.21	1,000	130	1,000
30.....	28.60	1,000	130	1,000
35.....	31.70	1,000	130	1,000
40.....	35.79	1,000	130	1,000
45.....	41.32	1,000	130	1,000
50.....	48.89	1,000	130	1,000
55.....	59.31	1,000	130	1,000
60.....	73.79	1,000	130	1,000

With the above schedule and the tables on page 800 before us, we may make the comparison here desired. In the table following will be found the result of the comparison. The first part of the table compares the amount of accident protection purchasable on the assessment industrial plan for each \$1 of premium expenditure with the amount purchasable on the ordinary plan for the same premium expenditure; the second part compares in a similar way the sick benefits guaranteed by the assessment industrial policy with those guaranteed by the ordinary policy; the third compares the death benefits of the two kinds of policies. In interpreting the table it should be remembered that each element of protection compared is only one of the three things guaranteed in both classes of policies, to wit, insurance against accident, insurance against sickness, and insurance against death. In qualification of the figures of this table it should be said that the benefits guaranteed under a policy in the assessment industrial company are largely reduced by many terms and conditions which do not appear in the policies of the ordinary insurance company. These conditions are fully set forth on page 807 et seq.

ACCIDENT BENEFITS (MAXIMUM) GUARANTEED FOR EACH \$1 OF PREMIUM ON COMBINATION POLICIES BY ASSESSMENT INDUSTRIAL COMPANIES AND BY AN ORDINARY COMPANY.

Age (years).	Accident benefits (maximum) guaranteed per \$1 of premium.		
	Industrial (average of 10 companies).	Ordinary.	Per cent of excess of ordinary over industrial.
20.....	\$3.89	\$41.03	955
25.....	3.89	38.15	881
30.....	3.89	34.97	799
35.....	3.89	31.55	711
40.....	3.70	27.94	655
45.....	3.19	24.20	659
50.....	2.89	20.45	608
55.....	2.59	16.86	551
60.....	2.45	13.55	453

SICK BENEFITS (MAXIMUM) GUARANTEED FOR EACH \$1 OF PREMIUM ON COMBINATION POLICIES BY ASSESSMENT INDUSTRIAL COMPANIES AND BY AN ORDINARY COMPANY.

Age (years).	Sick benefits (maximum) guaranteed per \$1 of premium.		
	Industrial (average of 10 companies).	Ordinary.	Per cent of excess of ordinary over industrial.
20.....	\$4.62	\$5.33	15
25.....	4.62	4.96	7
30.....	4.62	4.54	a 2
35.....	4.62	4.10	a 13
40.....	4.42	3.63	a 22
45.....	3.77	3.15	a 20
50.....	3.47	2.66	a 30
55.....	2.80	2.19	a 28
60.....	2.69	1.76	a 53

a Excess is in favor of industrial insurance.

DEATH BENEFITS GUARANTEED FOR EACH \$1 OF PREMIUM ON COMBINATION POLICIES BY ASSESSMENT INDUSTRIAL COMPANIES AND BY AN ORDINARY COMPANY.

Age (years).	Death benefits guaranteed per \$1 of premium.		
	Industrial (average of 10 companies).	Ordinary.	Per cent of excess of ordinary over industrial.
20.....	\$5.35	\$41.03	667
25.....	5.35	38.15	611
30.....	5.35	34.97	554
35.....	5.35	31.55	490
40.....	5.17	27.94	440
45.....	4.31	24.20	461
50.....	3.96	20.45	416
55.....	3.44	16.86	390
60.....	3.53	13.55	284

The foregoing table shows the widest difference between the prices of industrial and ordinary insurance yet discovered. As between the accident indemnity furnished by the assessment industrial companies and that furnished by the ordinary company there can hardly be said

to be any comparison, for the accident indemnity of the ordinary policy exceeds that of the assessment industrial policy by many hundred per cent. In the matter of sick indemnity the price seems to be slightly in favor of the industrial companies, altho the modifications, which are found in the assessment industrial policies and which will be stated below, would bring the guarantees far below the figures given in the table. Again the life insurance of the ordinary policy is several hundred per cent greater than the death benefit of the assessment industrial policy. When we observe the facts contained in the table in their entirety, remembering that the indemnities provided by both the assessment industrial and the ordinary policies constitute a triple guarantee, we are forced to the conclusion that the small-payment method of buying combination insurance is inordinately costly when compared with the large-payment method.

MONTHLY ASSESSMENT ASSOCIATIONS.

Two of the assessment companies sell combination insurance for premiums payable monthly. One of these does monthly assessment business only, while the other carries on both a weekly and monthly premium business. The rates of these companies are here given:

SCHEDULE OF PREMIUMS AND BENEFITS ON MONTHLY ASSESSMENT PLAN,
COMPANY NO. 12.

Age (years).	Entrance fee.	Monthly premium.	Sick and accident benefits per week.	Death benefit.
6 to 15.....	\$2.00	\$0.65	\$2.50	\$50.00
15 to 20.....	4.00	1.25	6.00	100.00
20 to 30.....	4.00	1.25	8.00	100.00
30 to 40.....	4.00	1.25	7.00	100.00
40 to 50.....	4.00	1.25	6.00	100.00
50 to 60.....	2.00	.65	2.50	50.00

SCHEDULE OF PREMIUMS AND BENEFITS ON MONTHLY ASSESSMENT PLAN,
COMPANY NO. 13.

15 to 35.....	\$3.00	\$0.25	\$1.50	\$25.00
35 to 45.....	3.00	.25	1.50	20.00
45 to 55.....	3.00	.25	1.25	20.00
15 to 35.....	3.00	.40	2.40	40.00
35 to 45.....	3.00	.40	2.40	32.00
45 to 55.....	3.00	.40	2.00	32.00
15 to 35.....	3.00	.50	3.00	50.00
35 to 45.....	3.00	.50	3.00	40.00
45 to 55.....	3.00	.50	2.50	40.00
15 to 35.....	3.00	.60	3.60	60.00
35 to 45.....	3.00	.60	3.60	48.00
45 to 55.....	3.00	.60	3.00	48.00
15 to 35.....	3.00	.75	4.50	75.00
35 to 45.....	3.00	.75	4.00	60.00
45 to 50.....	3.00	.75	3.50	60.00
15 to 35.....	3.00	1.00	6.00	100.00
35 to 45.....	3.00	1.00	5.50	80.00
45 to 50.....	3.00	1.00	5.00	80.00
15 to 35.....	3.00	1.25	7.00	125.00
35 to 45.....	3.00	1.25	7.00	100.00
45 to 50.....	3.00	1.25	6.00	85.00

The foregoing rates tell their own story. They can not be compared with the rates of other companies, for there are no other companies in the District which sell precisely the same kind of insurance payable in monthly premiums. A comparison of the rates of one of the companies with the rates of the other shows that the charges in both cases are practically the same.

COST OF WHOLE-LIFE INSURANCE IN ASSESSMENT COMPANIES

Several of the assessment industrial companies sell simple whole-life as well as combination insurance. The whole-life business of these assessment companies is, with one unimportant exception, conducted on the industrial plan, and the life rates offered by these companies follow as a rule very closely those offered by the regular industrial companies. A comprehensive account of the industrial life rates of the assessment companies would, therefore, be only a repetition of previous statements. In the schedules of several of the assessment industrial companies, however, the rates for straight-life insurance show a departure from the charges of the regular industrial companies, and these schedules must receive attention.

One assessment company offers the following schedule of rates for straight-life insurance:

PREMIUM RATES CHARGED FOR STRAIGHT-LIFE INSURANCE BY AN ASSESSMENT INDUSTRIAL COMPANY.

Age at next birthday (years).	Weekly premium (cents).	Amount of insurance. (^a)
19 to 15.....	10	100
16 to 20.....	10	90
21 to 25.....	10	80
26 to 30.....	10	70
31 to 35.....	10	60
36 to 40.....	10	50
41 to 45.....	10	40
46 to 50.....	10	30
51 to 55.....	10	20

^a For each five-year period that the policy is kept continuously in force, not exceeding 25 years, one-fifth the original mortuary value is added.

The relative cost of a policy of this kind in comparison with a similar policy issued by a regular industrial company is conveniently shown in the table below. In the second column are the successive death benefits guaranteed on a policy at each five-year period when issued by an assessment industrial company at the age of 20 (at next birthday), the weekly premium being 10 cents. In the third column is the mortuary value at each five-year period usually assured by a regular industrial company, the age being 20 (at next birthday), and the premium being 10 cents. In qualification of these figures it should be said that the mortuary value of a policy in an assessment industrial company is largely reduced by many terms and conditions which do not appear in the policies of the regular industrial companies. These conditions are fully set forth on page 807 et seq.

DEATH BENEFITS GUARANTEED AT EACH FIVE-YEAR PERIOD BY AN ASSESSMENT INDUSTRIAL COMPANY AND BY A REGULAR INDUSTRIAL COMPANY ON A POLICY ISSUED AT AGE 20 (AT NEXT BIRTHDAY) FOR A WEEKLY PREMIUM OF 10 CENTS.

Attained age of insured, policy having been issued at age 20 (at next birthday).	Death benefits guaranteed at specified age for a weekly premium of 10 cents.		
	Assessment industrial company. (a)	Regular industrial company.	Per cent of excess of regular over assessment.
20 years.....	b \$90	b \$174	93
25 years.....	108	174	61
30 years.....	126	174	38
35 years.....	144	174	21
40 years.....	162	174	7
45 years and over.....	180	174	c 4

a The mortuary value of a policy in an assessment industrial company is largely reduced by many terms and conditions which do not appear in the policies of the regular industrial companies. These conditions are fully set forth on page 807 et seq.

b The policy reaches the full value given only when premiums have been paid for a full year.

c Excess in favor of assessment policy.

The above table shows that this particular assessment industrial policy is a very ingenious affair. The person insured in the assessment company has after the age of 45, \$6 more of insurance than he would have received in the regular industrial company. In the meantime, taking into consideration the amount of protection he has had and taking the charges of the regular industrial company as a basis for calculation, he has paid for this insurance premiums in excess of what the same amount of protection would have cost in a regular industrial company as follows:

Excess premiums paid—

First five years.....	\$12.55
Second five years.....	9.90
Third five years.....	7.20
Fourth five years.....	4.50
Fifth five years.....	1.80
Total.....	35.95

Another assessment industrial company offers for a weekly premium of 5 cents insurance as shown in the second column of the table following. The third column gives the amount of insurance usually guaranteed for a weekly premium of 5 cents by the regular industrial companies. The per cent of difference between the amounts is also shown, and it will be observed that the regular industrial company gives a much greater insurance for the same premium—5 cents per week.

DEATH BENEFITS GUARANTEED BY AN ASSESSMENT INDUSTRIAL COMPANY AND BY A REGULAR INDUSTRIAL COMPANY FOR A WEEKLY PREMIUM OF 5 CENTS.

Age at next birthday (years).	Death benefits guaranteed for a weekly premium of 5 cents.		
	Assessment industrial company.	Regular industrial company.	Per cent of excess of regular over assessment.
15.....	\$94	\$103	1
20.....	78	87	1
25.....	66	76	1
30.....	57	67	1
35.....	49	59	1
40.....	40	50	1
45.....	32	42	1
50.....	25	35	1
55.....	18	28	1
60.....	12	22	1

A third assessment industrial company offers a whole-life policy that is worthy of special notice. It will be remembered that the regular industrial companies pay only one-fourth of the insurance if the insured dies within six months of the date of the issue of the policy and only one-half if death occurs after six months and within one year from the date of the issue of the policy. Now the assessment company in question offers a whole-life policy on precisely these terms and at the same rates charged by the regular industrial companies. But it also issues a special whole-life policy that does not contain the conditions referred to above but is in full force as soon as it is executed. For this advantageous feature exactly 100 per cent is added to the premium, while nothing is added to the face of the policy. The rates of this policy and its conditions are given below just as they are advertised:

DEATH BENEFITS GUARANTEED FOR A WEEKLY PREMIUM OF 10 CENTS BY AN ASSESSMENT INDUSTRIAL COMPANY.

[Under this policy the full amount of the insurance is in force from the payment of the first premium and the delivery of the policy.]

Age at next birthday (years).	Amount of death benefit.	Age at next birthday (years).	Amount of death benefit.	Age at next birthday (years).	Amount of death benefit.
10.....	\$120	31.....	\$66	52.....	\$21
11.....	118	32.....	64	53.....	20
12.....	116	33.....	62	54.....	19
13.....	112	34.....	60	55.....	18
14.....	108	35.....	59	56.....	17
15.....	103	36.....	57	57.....	16
16.....	100	37.....	55	58.....	15
17.....	94	38.....	54	59.....	14
18.....	92	39.....	52	60.....	13
19.....	89	40.....	50	61.....	12
20.....	87	41.....	49	62.....	11
21.....	84	42.....	47	63.....	10
22.....	82	43.....	45	64.....	9
23.....	80	44.....	44	65.....	8
24.....	78	45.....	42	66.....	7
25.....	76	46.....	41	67.....	6
26.....	74	47.....	39	68.....	5
27.....	72	48.....	38	69.....	4
28.....	71	49.....	37	70.....	3
29.....	69	50.....	35		
30.....	67	51.....	34		

"Policies written up to \$500 on the above table and insure for the full amount when delivered. Policy from date of issue is incontestable and absolutely free of conditions as to residence, occupation, or travel, and payable one hour after death."

The above rates are 100 per cent higher than the regular industrial rates, and 300 per cent higher than the ordinary rates in regular companies.

TERMS AND CONDITIONS OF COMBINATION ASSESSMENT POLICIES.

The schedules of rates of themselves will not give a correct idea of the cost of insurance which the assessment industrial companies sell. To gain a clear notion of that cost the policies of the company must be carefully examined. Such an examination will now be undertaken, but first it will be best to present the exact text of a typical combination policy issued by one of the assessment industrial associations in the District:

FORM OF COMBINATION POLICY CONTRACT ISSUED BY AN ASSESSMENT INDUSTRIAL ASSOCIATION.

No. ———. [Name of company.] Age 20.
By this Certificate of Membership,

In consideration of the statements and agreements made in the application for this certificate of membership, which application is hereby made a part of this contract and in further consideration of the payment of the sum of fifteen cents on the date hereof and the payment of a like sum on Monday of each week hereafter, promises to pay to ———, of Washington, D. C., four and 50/100 dollars per week, upon satisfactory proof of disability, thru sickness or accident, in accordance with the terms and conditions as provided herein, from giving any attention to or superintending in any manner the duties usually performed, or any other business or occupation (the proof of which shall consist of the attending physician's certificate, approved by the medical director of the association, or some officer thereof, and which shall be furnished weekly by the member during the continuance of the disability): On each anniversary of this certificate (after the first) five of the weekly premiums paid hereon shall be added annually to the amount of the death benefit, and will be payable at the death of the member named herein, provided this certificate be kept in full force from date of issue.

In the event of the death of the insured the said association, as provided by the terms herein, will pay to ———, wife, forty-five dollars.

In witness whereof, the said association, at its office, in Washington, D. C., has, by its president and secretary, signed and sealed this certificate subject to the by-laws, rules, and regulations, and terms and conditions as printed on the back of this certificate, which are hereby made a part of this contract, in the same manner and to the same extent as if printed in the body hereof, but the same shall not be binding on the said association prior to the date hereof, or unless the member is alive and in good health on the date of its delivery, or on the date when the first payment is made known. Note article 21 of certificate.

Dated this 22d day of August, one thousand nine hundred and 4.

_____, *President.*
_____, *Secretary.*

Countersigned by _____, *General Manager.*

[SEAL.]

and in the event of their failing to do so they shall be considered as having withdrawn from the association, and their certificate of membership shall be void and all dues and other moneys paid by the member shall be refunded to him. The member shall not be entitled to any benefits until five weeks after he has furnished the health certificate.

The association shall have the right and power to refuse to reinstate any member whose certificate of membership has been forfeited for any just cause, and such refusal shall be final and conclusive.

If a member fail to pay the weekly dues upon this certificate for three or more consecutive Mondays the certificate shall be void and all payments made hereunder shall be forfeited. The member will not be entitled to any benefits for sickness, accident, or death. The member can be reinstated, if in good health by paying up in full all arrears of dues and other moneys and furnishing a health certificate from the association's medical examiner, but such member may be reinstated by the association without examination, if it so desires, but such member shall not be entitled to any benefits for sickness, accident, or death occurring within five weeks after the date of reinstatement, nor after that for any sickness or accident having had its beginning during said five weeks, nor for death resulting from sickness or accident commencing during said five weeks, but such members upon the surrender of their certificate for cancellation, shall be entitled to the return of all dues paid within the beginning of said five weeks.

If a member is in arrears for three or more Mondays by passing a medical examination or its agent, if required, may make partial payments of their arrears. No member who has been three Mondays in arrears by reason of failure to pay partial payments until five weeks after the payment of all arrears of dues and other moneys for any sickness or accident having had its beginning during said five weeks, nor for death resulting from the same other than the return of dues paid within the time provided in section 3 hereof.

7. And it is further agreed that if within the period of one year from the date benefits attach as aforesaid, the insured shall have any sickness, disability or accident, for which benefits would be payable, and a qualified physician in good standing, shall certify such sickness, disability or accident to be permanent and probably incurable, and the medical examiner or any other officer designated by the association approve the same, an amount equal to one-half the funeral benefit named in this certificate will be payable; and if such sickness, disability, or accident should occur after one year from the date said benefits attach the full amount of the funeral benefit will be payable, and in either event, upon such payment or the tender thereof, this certificate shall cease and be surrendered to the association. In no event shall more than an amount equal to 52 weekly benefits (in the aggregate) be paid under this certificate.

8. The age of the person insured in this certificate shall be admitted on due proof, but if not so proven, the amount of sick or death benefit payable under this certificate shall in no case be more than the weekly payment charged would have purchased in this association for such person at their true age.

9. This certificate and the receipt book containing the entries of assessments paid on the same, shall be exhibited to the officers or authorized employees of the association, at any time upon demand; and when notifying the association of disability under this certificate, the receipt book must accompany said notice.

10. The disappearance or long-continued absence of the member shall not be regarded as evidence of death, but satisfactory proof of the fact and cause of death must be furnished the association, before death benefit can be claimed.

11. Beneficiaries must have something more than a pecuniary interest in the insured, as speculative policies are not issued by this association.

12. Members who hold a sick and accident certificate and whose premiums are not in arrears will be entitled to benefits, if by sickness or accident they shall be totally disabled from attending to their usual occupation or other kind of employment; said member must be strictly confined to bed at his place of abode with some well-defined disease or accident and attended there by a duly licensed physician sufficiently often to answer intelligently and in full all questions appearing in such blanks as may be furnished by the association, otherwise no benefits will be paid. Forms for member's and physician's weekly reports will be furnished on demand, and all questions therein must be answered in full to the satisfaction of the association.

13. Failure to furnish reports weekly on blanks furnished by the association will invalidate any claim, viz: First report must be furnished seven days from date notice was received by the association, and second report seven days from that and so continued thruout illness, whether or not payment has been made for the preceding week.

14. In order to properly adjust any claim the association may require the member or beneficiary at any time to furnish an affidavit, and also to furnish an affidavit from the attending physician at any time and as often as may be deemed necessary, and their failure to do so within seven days will invalidate their claim.

15. When a member becomes disabled thru sickness or accident, he or she shall at once write to the association and his or her claim will go into effect from the date notice is received by the association at its principal office, provided said member, at the time, is attended at his or her residence by a duly registered physician. Failure to notify the association of sickness or accident within ten days will invalidate the claim. The member shall also submit to a medical examination, if deemed necessary, by the association's own physician.

16. All benefits will be computed from the date of the physician's first visit to the member to the date of his last visit, provided always that written notice of disability has been received from said member by the association on or before the date of the physician's first visit to the member, otherwise all benefits will be computed from the date notice is received from said member until date of physician's last visit to said member, but in no case will benefits be paid for less than seven days.

of sickness or death caused by pulmonary or heart disease, consumption, phthisis or paralysis, only one-half of the amount otherwise due will be paid.

17. It is hereby agreed that only one-fourth of the maximum benefits specified herein shall be paid for any sickness, accident, or death occurring previous to the first twenty-six weeks from date of this certificate, or for any sickness or accident having had its beginning during said twenty-six weeks, or for death caused by any sickness or accident having had its beginning during said twenty-six weeks from date of certificate of membership. After twenty-six weeks from date of this certificate the full weekly sick and accident benefit will be paid, and after one year from the date of this certificate the entire death benefit will be paid, but in no case can a member and his heirs or personal representatives draw more than an amount equal to ten weekly benefits in any one year, nor more than five weekly benefits for sickness or accident in any one month.

18. It is further agreed that one-fourth and one-half weekly benefits paid under this certificate shall be construed to mean full weekly benefits in computing the number of weekly benefits payable during the first twelve months of membership.

19. No collector or employee of the association has authority to alter or discharge contracts or waive forfeiture. The application of every member shall form a part of the contract between the member and the association, and if any statement contained therein, by whomsoever made or written, shall be untrue in any respect, then the membership and the certificate of membership of any such member shall be null and void, and all moneys paid on account of same shall be absolutely forfeited to the association. Sick benefits will not be paid for illness arising from any of the following diseases, their consequence or sequel: Rheumatism, neuralgia, lumbago, sciatic, venereal diseases, confinement, chronic diseases, intemperance, or diseases peculiar only to women.

20. No suit or action at law, or in equity, shall be maintained to enforce the performance of this contract until sixty days after the filing, in the principal office of the association of any claims against the same of any description, nor unless such suit or action shall be commenced within six months after the beginning of any disability for which benefits are claimed, or if for death benefits, within six months after the decease of the person insured under this certificate, and it is expressly agreed that should any suit or action be commenced after the expiration of said six months the lapse of time shall be deemed as conclusive evidence against the validity of such claim, any statement of limitations to the contrary, notwithstanding. The production of the certificate and premium receipt book, or a receipt from the claimant shall be a full release and discharge to the association and its officers.

21. The board of trustees shall have the power to levy extra assessments when needed, or raise the rate if necessary.

22. It is hereby stipulated and agreed that in case the member holding this certificate dies by the hand of justice, or is killed in a fight or brawl, or becomes disabled, hurt or sick, thru or by reason of intoxication, or any fight or brawl, thru violation of any law, or shall come to death by his or her own hand, sane or insane, be confined with any disease or ailment, chronic or otherwise, contracted before joining the association, or when sickness or accident is caused by being injured while in active service in the Regular Army or Militia, the association shall not be required liable to pay anything whatever to such member, or any person, for or on account of same.

23. No additional certificate will be allowed or considered binding on the association (unless so indorsed at the time of their issue). If any additional certificates issued or taken out by the within named, or thru his or her sanction was taken by some other person without being indorsed additional, such certificates will be declared null and void by the association, and no benefits will be payable except on the first certificate that was issued to the member.

Some of the conditions found in the above policy are not common to all the policies. For example, the provision for an increase in the death benefit after a certain time is found in the policies of but two other companies. Generally speaking, however, the policy printed above very well exemplifies the nature of the terms and conditions which are found in assessment industrial policies and which will now be examined in detail.

CONDITIONS OF BENEFIT PAYMENT DURING FIRST YEAR.

In none of the sick, accident, or death benefit policies do the full benefits accrue during the first year. The conditions in respect to first-year benefits can be learned from the following extracts taken from the policies of leading assessment industrial companies:

1. And it is agreed furthermore that only one-half of the benefits specified above shall be paid for any sickness occurring after the first ten weeks from date of this certificate [sic], or for any sickness having had its beginning after said ten weeks of membership, but in the case of disability or death during the first twenty weeks from date, the association reserves the right to return all premiums paid on this certificate and cancel the same. After twenty weeks from date of this certificate the full weekly sick and disability benefit and one-half the death benefit will be paid, and after one year from the date of this certificate the entire funeral benefits will be paid.

Provided, however, that one-half weekly benefits paid under this agreement shall be construed to mean full weekly benefits, in computing the number of the full weekly benefits payable during the first twelve months of membership.

2. That neither sick or accident benefits will be paid if sickness or accident occur before three months from the date of this certificate; if such sickness, disability or accident occur after three months and before six months from the date hereof one-fourth of the amount named as sick or accident benefits will be paid. If after six months and before twelve months, one-half, after twelve months the full amount.

3. If sickness, death or accident occur after a membership of ten weeks and before six months, one-fourth of said sum; after six months and before nine months, one-half; after nine months and before twelve months, three-fourths of said sum; after twelve months, the full amount of said sum.

The fact that practically no benefits accrue for a period ranging from ten to twenty weeks after the execution of the policy gives rise at times to a very singular insurance situation. A solicitor of industrial insurance frequently receives for his services all the premiums paid on a policy during the first fifteen or twenty weeks of its existence. Now it sometimes happens that a solicitor who is popular and well known in his neighborhood will solicit for three or four months for one company and then go over to another company. He then approaches his insurance clientele and asks them to let their

policies in one company lapse and to insure in his new company. Personal considerations actually lead many to do this. After collecting premiums for several months in company two the solicitor transfers his allegiance to company three, and again prevails upon his followers to change their policies. Thus by a series of skilful changes he collects the premiums and puts them in his pocket. In the meantime his policy holders are insured for nothing at all or for only one-fourth of the amount for which they pay.

CONDITIONS OF BENEFIT PAYMENT IN CASE OF CERTAIN DISEASES.

The sick and funeral benefits are by no means general indemnities against sickness and death. Some of the assessment industrial policies are liberal in respect to the cause of disability, but most of them name a long list of diseases for which only partial benefits and in other cases no benefits at all will be paid. Only the policies themselves can tell when benefits will and will not accrue, as will be seen from the following extracts from the policies of the various companies:

1. And provided further that in case of consumption, heart disease, rheumatism, sciatica or paralysis, only one-half the amount of sick benefits due under this contract will be payable for disability caused by such sickness. Provided further, that no more than seven [twelve for sickness] weeks' benefits shall be paid for any accidental injury sustained by the member.

2. Benefit will not be paid for sickness, caused by childbirth, diseases peculiar to females, venereal diseases or rheumatism in any form.

3. Only one-half of the sum otherwise due will be paid for death caused by consumption, phthisis, or heart disease or rheumatism occurring or having its beginning within one year from date of the policy.

4. In case of consumption, pulmonary diseases, heart disease, rheumatism, sciatica or paralysis only one-half the amount of sick or death benefits payable for disability or death caused by such diseases. Where disability is caused by accident not more than five weeks' benefits [ten weeks' sickness] will be paid.

5. No benefits will be paid for any chronic diseases which members contracted before joining the company. Benefits will not be paid for confinement, diseases peculiar to women or venereal diseases. For consumption, heart disease, rheumatism and paralysis one-half of sick benefit.

6. No sick benefits will be paid for confinement, diseases peculiar to women, venereal diseases, rheumatism, or any diseases contracted before joining this company and not reported in the application.

7. No benefits will be paid for disability caused by intoxication, violation of the laws of the land, venereal diseases, childbirth, disease of organs peculiar to females, rheumatism or death resulting from any of them.

8. In case of consumption, heart disease, or rheumatism occurring within eighteen months from date hereof, only one-half the amount

otherwise payable, will be payable for disability or death caused by such sickness.

—9. Accident, sick or death benefits will not be paid in any case, when the accident, sickness or death results from venereal diseases, suicide, attempt to commit suicide, drunkenness, immorality, insanity, or while engaged in active military or naval service, nor for consumption within one year from date of application, nor for injury, sickness or death if caused by negligence or wilful act of applicant.

10. It is further understood and agreed that no benefit for sickness, accident or death will be paid in any case where the sickness, accidents, or death results from venereal diseases, suicide or attempt to commit suicide, old sores or ulcerated legs * * *. But it is hereby understood that in case the member be constantly sick or have a lingering disease, or have yellow fever, smallpox, or any contagious disease, the aforesaid benefits may be reduced at any time by the order of the president or board of directors.

11. In case of sickness or death caused by pulmonary or heart disease, consumption, phthisis, or paralysis, only one-half of the amount otherwise due will be paid.

Some of the above conditions have far-reaching effects upon the claims of policy holders. The naming of so many diseases for which benefits will not be paid in case of sickness or death relieves the company of one-sixth or more of its liabilities in some instances and to a corresponding degree reduces the value of their insurance to policy holders. For example, in one policy—see (4) preceding—sickness or death from consumption, pulmonary diseases, heart disease, rheumatism, sciatica, and paralysis are mentioned as diseases which will exclude full sick and death benefits. To what extent policy holders find their claims reduced by this clause may be learned from the report of the health officer of the District for 1903-4. In that report the number of deaths caused by the above-named diseases compared with the total number of deaths from all causes was stated as bearing the following proportions:

PER CENT OF DEATHS FROM CERTAIN DISEASES OF THE TOTAL NUMBER OF DEATHS
FROM ALL CAUSES.

[From the report of the health officer of the District of Columbia for 1903-4.]

Cause of death.	Per cent of total deaths from all causes.
Consumption.....	13.055
Pneumonia.....	9.405
Heart disease.....	9.000
Rheumatism.....	.488
Paralysis.....	.724
Total.....	32.672

The foregoing figures show that nearly one-third of all deaths in the District of Columbia are from the excepted causes. Among the colored people, with whom the assessment industrial business is

done, the percentage of deaths from consumption and pneumonia would be considerably higher, for the death rate from these particular causes among the colored people is more than double the rate among the whites. It is thus seen that more than one-third of the policies of this company and of several others are liable to be scaled down to one-half their face value by reason of the harsh conditions in reference to certain diseases. In one case—see (10) preceding—the conditions exempting the company from liability are so sweeping as to leave the policy holder practically no guarantee at all: "But it is hereby understood that in case the member be constantly sick or have a lingering disease, or have yellow fever, smallpox, or any contagious disease, the aforesaid benefits may be reduced at any time by the order of the president or board of directors." No restriction whatever as to the amount of the reduction.

CONDITIONS OF ADMISSION.

Generally speaking admission into the assessment industrial association is easy. The following exhibit, compiled from official documents in the insurance department of the District, shows the facts in respect to conditions governing admission:

CONDITIONS GOVERNING ADMISSION TO THE ASSESSMENT INDUSTRIAL ASSOCIATIONS.

Company.	Entrance fee.	Age limit.	Is medical examination absolutely required.
Company No. 6.....	1 assessment ..	1 to 70 years.....	No.
Company No. 7.....	None.....	1 month to 70 years...	Yes.
Company No. 8.....	None.....	2 to 70 years.....	No.
Company No. 9.....	None.....	2 to 50 years.....	No.
Company No. 10.....	None.....	2 to 55 years.....	Yes.
Company No. 11.....	None.....	1 to 70 years.....	Yes. (a)
Company No. 12.....	\$2 to \$4.....	6 to 60 years.....	Yes.
Company No. 13.....	None.....	4 to 60 years.....	In some cases
Company No. 14.....	1 assessment.....	20 months to 70 years.	No.
Company No. 15.....	None.....	1 to 60 years.....	No.
Company No. 16.....	None.....	1 to 60 years.....	No.
Company No. 17.....	None.....	1 to 65 years.....	No.

a Or inspection.

According to the foregoing exhibit it may be broadly said that persons of any age may join the assessment industrial companies without cost and without medical examination. In three companies, however, a medical examination is required before issuing a policy. While most of the companies do not require a medical examination, nevertheless nearly all of them submit to a would-be policy holder an application blank to be filled out. The following is a specimen of such blanks:

FORM OF APPLICATION FOR INSURANCE IN AN ASSESSMENT INDUSTRIAL ASSOCIATION.

The [name of association], of Washington, D. C.

Application.

I hereby apply for a certificate of membership in the [name of association], of Washington, D. C., and promise and agree to make prompt payments of all assessments that may be levied upon me in accordance with this application, or failing to do so to relinquish all claims for benefits; and I agree that this application together with the conditions hereto annexed, and the certificate that shall issue from it, shall form the basis of contract between the society and myself.

Name Age next birthday years.

Address Color

Date of birth 190-. Are you married?

Present state of health Occupation

Date of last illness Duration

Nature of last illness

Name of medical attendant Address

Have you ever had rheumatism? When?

What was its nature? Duration?

Have you ever had any accidental disabling injury? When?

Its nature and result?

Have you had any ulcers, tumors, or cancerous sores on the

body?

Are you ruptured?

Has it ever disabled you from work or business?

Have you ever been treated for diseases of the lungs, heart, kid-

neys or bladder?

Do you use intoxicating liquors? To what extent? ...

State fully how many times in the last five years you have had any sickness or injury

that disabled you from attending to business, and how long it lasted, and its nature

.....

Deaf and dumb, blind or insane persons will not be admitted.

Name the person to whom the benefit in the event of your death shall be paid.

Name How related to you

I hereby warrant the truthfulness of the answers to the above interrogatories, that I have not withheld any facts as to my age, health, habits, or history that might mislead the agent or society, and agree as such that they and the conditions annexed, shall constitute the authority upon which a certificate shall be issued. And I further agree that should the of so elect at any time after the expiration of one year from the date hereof, should I become permanently disabled by sickness or accident, it may pay to me the amount named herein as a death benefit in full discharge of all claims under the certificate and that thereupon the certificate shall be surrendered to the society for cancellation and the contract terminated.

Date, 190-., Applicant.

To be answered by agent.

Have you fully explained and does the applicant understand the conditions under which the certificate will be issued?

....., Agent.

NOTE.—Should the application be rejected, the money paid to the agent will be refunded.

Address

CONDITIONS RELATING TO TERMINATION OF POLICY.

In all the assessment industrial policies there is a provision giving the company the right to terminate the contract by the payment (in whole or in part) of the death benefit in case the holder becomes permanently disabled. A single extract from one of the policies will be sufficient to illustrate the "permanent disability" clause: "If within the period of one year from the date benefits attach as aforesaid, the insured shall have any sickness, disability or accident for which benefit would be payable, and a qualified physician in good standing shall certify such sickness, disability or accident to be permanent and probably incurable, and the medical examiner or any other officer designated by the company approve the same, an amount equal to one-half the funeral benefit named in this certificate will be payable; and if such sickness, disability, or accident should occur after one year from the date said benefits attach, the full amount of the funeral benefit will be payable, and in either event, upon such payment or the tender thereof, this certificate shall cease and be surrendered to the company."

Under the foregoing provision, when it is seen that the sick policy holder is likely to remain sick for the full period during which sick benefits are payable and perhaps die in the end and render the company liable for death benefits in addition to the sick benefits that have been paid, the company puts an end to its risks by declaring the insured "probably incurable" and paying the death benefit at once. When compounding its liability in this way it is the custom of some of the companies to deduct from the sum due as a death benefit the sum of the sick benefits that have already been paid and give the policy holder the remainder. The right to proceed in this way is sometimes stipulated in the contract. Thus in one policy this clause is found, "should any member become incurable and disqualified (pronounced so by the company's physician) from following any and all business or vocation, the company reserves the right of paying to such a member a sum equivalent to the death benefits, deducting such fees as may have been paid for any and all sickness during that policy year in which the applicant was pronounced incurable, in which case all claims against the company shall stand canceled and the policy surrendered to the company and become null and void." In no case can a company lose by the presence of such a provision as this, and in the case of most of the companies it is cheaper to pay the death benefit than it is to pay the sick benefit for the full period for which benefits are allowed. In other words, the "probably incurable" clause permits the company to substitute a smaller for a greater liability and at the same time to wash itself a bad bargain.

The policies can of course also be terminated by failure to pay the premium. In most of the companies members who are in arrears may be reinstated: "Members in arrears for more than three assessments may be reinstated upon payment of back assessments in full, but will not be entitled to any benefits under the certificate unless in sound health and free from any disease at the time of such reinstatement, and in case death should occur for any cause whatever within five weeks from the date of such reinstatement the society shall not be liable to any extent whatever on account of such death."

The termination of the policy by lapse thru the nonpayment of premiums or otherwise relieves the company of all liability. There are no cash-surrender values or paid-up policy values in combination insurance: "If for any cause this certificate should become void all assessments paid on account thereof shall be forfeited to the company and all liability on the part of the society shall cease."

CONDITIONS AS TO THE COLLECTION OF PREMIUMS.

In all forms of industrial insurance it is the practise of the companies to collect the premiums at the home of the insured. The policies, however, do not provide for this convenient method of payment. The companies are under no obligation whatever to send a collector for the premiums. On the contrary, the policy holder is expressly obligated to pay the premiums at the office of the company. The provisions on this point are usually very explicit. The spirit of the condition in reference to place of payment may be learned in the following clause taken from a policy of an assessment industrial company: "That all assessments and dues are payable at the office of the association and the sending of a collector is only an act of courtesy on the part of the association, and the failure of the collector to call for dues will not be deemed an excuse for nonpayment as members can pay their dues at the office at any time during office hours." Sometimes the condition is more severe, as in the following: "In case for any reason the society shall not attend to the collection of assessments payable on their certificate thru its agent or collector it shall be the duty of the certificate holder within the time allowed by the society to bring or send said assessments to the home office or to the society's agent or collector, and in the event of the failure of the certificate holder to perform his duty the society may cancel this certificate without notice to any person or persons interested therein."

COST OF ASSESSMENT INDUSTRIAL INSURANCE AS AFFECTED BY
POLICY CONDITIONS.

It is plain that the numerous conditions with which the assessment industrial policies are weighted must be taken into account in considering the cost of insurance in the District. Nearly all the conditions that have been mentioned tend to make the cost of combination insurance higher than it appears to be as advertised in the rate schedules of the companies. The postponement of the full effect of the policy creates a period in which the policy holder is paying something for nothing or almost nothing; the conditions in respect to certain diseases reduce greatly the chances of getting the full policy value; the condition whereby the policy may be terminated by pronouncing the holder incurable is a one-sided bargain in which the insured is bound to be worsted; the condition in respect to place of payment of premium, contractually considered, takes the responsibility for the collection from the company where in industrial insurance it is supposed to rest, and places it upon the policy holder.

LAPSES OF ASSESSMENT INDUSTRIAL POLICIES.

It has been shown that among the buyers of industrial insurance from the regular companies the loss by lapses is very great. The assessment industrial business of the District shows even a greater percentage of loss thru this cause. Just how many lapses of combination policies occur in the District can not be told with absolute precision, yet a reliable estimate can be made.

According to the report of the Department of Insurance for the year ending December 31, 1903, during the year covered by the report seven of the assessment industrial companies sustained 2,637 losses and their combined money loss was \$13,313.31, or a loss of approximately \$5 on each policy settlement. Assuming this average of \$5 for each loss to have been correct as well for those companies which reported the amount but not the number of their losses, the \$37,691.27 reported as the total amount of losses for all assessment companies indicated a total of 7,538 losses. Subtracting the 7,538 policy settlements from the 40,783 policies which ceased to be in force during the year the number of lapses is found to be 33,245, or 78.9 per cent of the 42,142 policies written during the year.

The table below is given to show how short lived and unstable are the policies of the assessment companies:

NUMBER OF POLICIES OF THE ASSESSMENT INDUSTRIAL COMPANIES IN FORCE AT THE BEGINNING OF THE YEAR 1903, NUMBER WRITTEN DURING THE YEAR, NUM- WHICH CEASED TO BE IN FORCE DURING THE YEAR, AND NUMBER IN FORCE AT THE END OF THE YEAR.

Company.	Policies in force Jan. 1, 1903.	Policies issued in 1903.	Policies ceased to be in force in 1903.	Policies in force Dec. 31, 1903.
Company No. 6.....	10,760	11,281	15,937	6,104
Company No. 7.....	3,338	7,577	5,614	5,301
Company No. 8.....	2,217	5,551	4,509	3,259
Company No. 9.....	1,832	4,467	3,503	2,796
Company No. 10.....	1,648	4,843	3,867	2,624
Company No. 11.....	1,321	4,005	3,221	2,105
Company No. 12.....	1,996	645	544	2,097
Company No. 13.....	2,492	719	1,114	2,097
Company No. 14.....	529	1,091	493	1,127
Company No. 15.....		824	212	612
Company No. 16.....	492	712	650	554
Company No. 17.....	937	427	1,119	245
Total.....	27,562	42,142	40,783	28,921

It would seem that in some instances the only business done is a lapse business. A company will begin a year with a certain number of policies in force. It will write a very large number of policies during the year, yet wind up the year's business with a smaller number than it had at the beginning. And what is true of a single company for a single year seems to be true for the whole District for as long a time as statistics are available. On the 1st of January, 1903, there were 27,562 assessment policies in force. During the year 42,142 new policies were issued, yet the year ended with 28,921 policies, a net gain of only 1,359 policies.

PREMIUMS AND LOSSES OF ASSESSMENT INDUSTRIAL COMPANIES.

The amount of insurance in force at the end of the year 1903 in the District in the several assessment industrial companies and the premiums collected and the losses paid to policy holders, or their beneficiaries, during the year are set forth below:

PREMIUMS RECEIVED AND LOSSES AND CLAIMS PAID DURING 1903, AND ADMITTED NET ASSETS AND INSURANCE IN FORCE DECEMBER 31, 1903, FOR THE ASSESSMENT INDUSTRIAL COMPANIES.

Company.	Premiums received during year.	Losses and claims paid during year.	Admitted net assets December 31, 1903.	Insurance in force December 31, 1903.
Company No. 6.....	\$41,777.47	\$10,272.39	\$8,287.15	\$143,207.50
Company No. 7.....	27,073.74	3,132.94	23,608.40	246,465.75
Company No. 8.....	17,696.20	3,447.90	59,034.57	129,722.90
Company No. 9.....	14,304.91	3,150.12	1,185.79	97,860.00
Company No. 10.....	12,804.48	2,898.24	2,584.97	102,787.50
Company No. 11.....	9,065.05	1,497.64	1,021.13	81,007.42
Company No. 12.....	24,057.70	10,806.00	27,767.10	182,400.00
Company No. 13.....	7,435.29	354.70	5,839.18	60,089.50
Company No. 14.....	2,838.76	932.30	7,918.68	61,416.00
Company No. 15.....	283.38	100.63	994.45	3,700.25
Company No. 16.....	2,696.80	1,032.41	9,878.32	15,365.00
Company No. 17.....	1,059.70		657.37	3,065.00
Total.....	100,693.48	37,691.27	148,777.41	1,127,085.92

The above exhibit throws a flood of light upon the subject in hand. One of the first things observable from the figures is the small amount of assurance per dollar of premium expenditure, \$7.01. Again, the ratio which the amount of losses paid bears to the premiums received reveals the high price of assessment industrial insurance. This ratio for the year 1903 was a little more than 23 per cent; or stated in another way, the assessment companies during that year collected from the policy holders \$4.26 for every dollar they gave back to them. In some of the companies the ratio of premium receipts to loss disbursements was much greater than 4 to 1. One large company it will be noticed collected nearly \$9 in premiums for every dollar returned to the policy holders, while another company collected more than \$20 in premiums for every dollar it paid out in losses.

OCCUPATIONS OF ASSESSMENT INDUSTRIAL POLICY HOLDERS.

The character of the occupations of those who buy combination insurance in the assessment industrial associations in the District is indicated in the subjoined table. In the preparation of this table the lists of beneficiaries which the companies are accustomed to publish were used. From these lists 500 identifications of adults were made and their occupations ascertained. In the work of identification all the published lists were exploited in the same manner and to the same extent.

OCCUPATIONS OF BENEFICIARIES OF 500 ASSESSMENT INDUSTRIAL CERTIFICATES.

Occupation.	Number.	Percent.
Laborers.....	127	25.4
Domestics.....	122	24.4
Widows.....	57	11.4
Washerwomen.....	54	10.8
Teamsters.....	26	5.2
Porters.....	20	4.0
Waiters.....	12	2.4
Barbers.....	10	2.0
Keepers of eating houses.....	9	1.8
Cooks (male).....	8	1.6
Engineers.....	6	1.2
Nurses.....	6	1.2
Seamstresses.....	6	1.2
Cochmen.....	5	1.0
Clerks.....	4	.8
Blacksmiths.....	3	.6
Carpenters.....	3	.6
Hucksters.....	2	.4
Unclassified.....	20	4.0
Total.....	500	100.0

CONCLUSIONS AS TO THE COST OF COMMERCIAL INSURANCE IN THE DISTRICT.

The entire field of premium rates charged for the several kinds of insurance which are sold by the insurance companies of the District has now been surveyed.

The price of regular industrial insurance in all its forms has been seen to be very much higher than that of ordinary insurance. An analysis of the insurance business of the District of Columbia for 1903 furnishes some measure of the losses to the policy holders resulting from the purchase of life insurance on the weekly payment or industrial plan when compared with the cost of ordinary insurance. The rates of premium charged differ according to the form of the policy, but an examination of the several tables which have been given would seem to justify the statement that on an average the charge for regular industrial insurance is at least 75 per cent higher than that for ordinary insurance. If the amounts collected as premiums from the regular industrial policy holders (\$864,059.61) could have been paid in annual payments and could have purchased insurance at the rates charged by the ordinary companies, \$40,250,227 of protection would have been secured by the industrial policy holders instead of \$23,000,130, the amount actually secured under the industrial plan. This represents an apparent loss in insurance protection to the industrial policy holders of \$17,250,000, or, if it be measured in premium payments, an apparent loss of over \$370,000 upon the premium payments of the year.

With regard to assessment industrial insurance of the combination type, its cost is very high even when compared with the cost of ordinary insurance of the same kind, but on account of the complex nature of the subject it is not possible to determine exactly the amount of loss that is occasioned in the District by investments in combination industrial insurance. Reference to the table of premium rates previously given will afford a tolerably clear notion of the extent of that loss. It has been shown that the mortuary value of a combination policy of an ordinary company is fully 300 per cent greater than that of a similar policy in an assessment industrial company, the premium expenditure being the same. Applying this ratio to the insurance in force in the assessment industrial associations December 31, 1903, as already given, it appears that the premiums which purchased an assurance in those companies of a little more than \$1,125,000 were sufficient to purchase approximately \$4,500,000 of the same kind of assurance if they (the premiums) had been paid annually in an ordinary company. Here is an indicated loss in mortuary values of \$3,375,000. If the loss be measured by the premiums collected in excess of what would have been necessary to purchase the same amount of insurance in an ordinary company, this of course corresponds to the losses as indicated by the mortuary values, and as the premiums received during the year were \$160,693.48, it would seem that \$120,000 would be a fair estimate of the premium loss.

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sum up, then, the losses during the year 1903 in the District of
resulting to the policy holders from the weekly payment or
plan of insurance, or the additional amount of insurance
might have been carried for the same premium payments if
could have been paid in yearly payments in ordinary companies,
a round numbers as follows:

measured by amount of insurance carried—

Regular industrial insurance.....	\$17, 250, 000
Assessment industrial insurance.....	3, 375, 000
Total.....	20, 625, 000

the losses be measured in premium payments made during the
excess of what would have been required to purchase the same
of insurance if the premiums could have been paid in yearly
payments in ordinary companies, they may be expressed as follows:

measured by excessive premiums—

Regular industrial insurance.....	\$370, 000
Assessment industrial insurance.....	120, 000
Total.....	490, 000

course the facts set forth above tell nothing about the reasonable-
ness or unreasonableness of the cost of either ordinary insurance or of
industrial insurance. They simply show what the cost of industrial
insurance is and how much greater that cost is than the cost of ordi-
nary insurance, and illustrate, as did the study of conditions of living
among the poor, that the smaller the earning power of a wage-earner
the smaller also is the purchasing power of each of his dollars.

RECENT REPORTS OF STATE BUREAUS OF LABOR STATISTICS.

MASSACHUSETTS.

Thirty-sixth Annual Report of the Bureau of Statistics of Labor.
March, 1906. Charles F. Pidgin, chief. xxiii, 613 pp.

This report consists of six parts, as follows: Part I, Industrial education of working girls, 37 pages; Part II, Cotton manufactures in Massachusetts and the Southern States, 68 pages; Part III, Old-age pensions, 44 pages; Part IV, Industrial opportunities not yet utilized in Massachusetts, 151 pages; Part V, Statistics of manufactures, 1903, 1904, 71 pages; Part VI, Labor and industrial chronology for the year ending September 30, 1905, 227 pages.

INDUSTRIAL EDUCATION OF WORKING GIRLS.—This investigation was undertaken by the National League of Women Workers in order to determine the kind of education needed by the working girl and to what extent the need was supplied by the public schools. Of 2,000 schedules secured in Connecticut, Massachusetts, New Jersey, New York, and Pennsylvania and presented to the Bureau for tabulation only 982 were available for the preparation of the tables showing for the working girls engaged in each of 14 occupations the number of native and of foreign birth, where educated, class of school attended, age at beginning work, lowest and highest wages received, economic relation of the worker to her home, and number of years at work. The chapter closes with a description of a training school for girls recently opened in Boston.

COTTON MANUFACTURES IN MASSACHUSETTS AND IN THE SOUTHERN STATES.—The object of this investigation was to secure information for comparative purposes relative to the industrial, economic, and social conditions in the two sections so far as it related to this class of manufactures. The presentation consists of a history of the development of the industry in three Southern States; a discussion of the effect of immigration; wages, age, and housing of the employees; natural advantages; cost of living; transportation and taxes; capital invested; classification of looms, and class and amount of production in the two sections. The following table, based on the United States

census returns, is presented, showing the percentage of cost each item entering into the manufactured product is of the total cost:

PERCENTAGE OF COST EACH ITEM ENTERING INTO COTTON MANUFACTURE IS OF TOTAL COST, IN MASSACHUSETTS AND IN THREE SOUTHERN STATES, 1890 AND 1900.

State.	Per cent of cost each item is of total cost.										Total.	
	Raw cotton used.		Other raw material.		Salaries.		Wages.		Miscellaneous expenses.			
	1890.	1900.	1890.	1900.	1890.	1900.	1890.	1900.	1890.	1900.	1890.	1900.
Massachusetts...	45.67	40.68	17.56	15.85	1.24	2.10	28.07	33.80	7.46	7.57	100.00	100.00
Georgia.....	61.00	60.01	10.70	8.80	1.82	2.66	19.84	22.08	6.64	6.45	100.00	100.00
North Carolina...	64.95	56.47	10.14	15.58	2.05	2.43	17.76	21.25	5.10	4.27	100.00	100.00
South Carolina...	63.41	61.25	6.41	9.58	1.51	2.20	16.80	20.79	5.87	6.18	100.00	100.00

The following table compares statistics of cotton manufactures for 1870 with those for 1900, in Massachusetts and in three Southern States:

COMPARATIVE STATISTICS OF COTTON MANUFACTURES IN MASSACHUSETTS AND IN THREE SOUTHERN STATES, 1870 AND 1900.

State.	Capital invested.		Cotton mills.		Spindles.		Looms.	
	1870.	1900.	1870.	1900.	1870.	1900.	1870.	1900.
Massachusetts.....	\$44,714,375	\$155,761,193	191	163	2,619,541	7,784,687	55,343	179,280
Georgia.....	3,433,265	24,158,159	34	67	85,602	815,545	1,887	19,303
North Carolina.....	1,030,900	33,011,516	33	177	39,847	1,133,432	618	25,469
South Carolina.....	1,337,000	39,258,946	12	80	34,940	1,431,349	745	42,663

State.	Value of goods made.		Average number of employees.		Total wages paid.		Average yearly earnings.	
	1870.	1900.	1870.	1900.	1870.	1900.	1870.	1900.
Massachusetts.....	\$59,493,153	\$110,478,327	43,512	92,085	\$13,589,305	\$32,327,443	\$312.31	\$251.06
Georgia.....	3,648,973	18,457,645	2,846	18,283	611,868	3,566,951	214.09	195.10
North Carolina.....	1,345,052	28,372,798	1,453	30,273	182,951	5,127,087	125.91	169.36
South Carolina.....	1,529,937	29,723,919	1,123	30,201	257,680	5,066,840	229.46	167.77

OLD-AGE PENSIONS.—The purpose of this report was to consider the possibility of the State establishing a system of old-age pensions. There is presented in condensed form a summary of an article on the insurance of workingmen, which appeared in the bureau report for 1900, giving the conditions under which old-age pensions are granted in various foreign countries. In addition tables are given showing for the year 1900 the total expenditures for all purposes of each city and town in the State, expenditures for charity, and per cent of expenditures for charity of total expenditures; population, expenditure per capita for all purposes, and expenditure per capita for charity; total valuation, total taxation, and number of male polls assessed; per cent of expenditures for charity of total valuation, per cent of expenditures for charity of total taxation, and average expenditures for cha-

male poll; also, number of persons over 60 years of age in the State, by sex and age groups, and number of deaths of persons over 60 years of age, by sex and age groups. A discussion follows comparing the probable expense to the State of a system of old-age pensions, with the expenditures for charity for the year 1900.

INDUSTRIAL OPPORTUNITIES NOT YET UTILIZED.—This chapter consists of returns from the boards of selectmen of 231 towns. The purpose of this investigation was to ascertain the advantages offered by these towns for the establishment of some industry. From these returns a series of eight tables is presented showing as follows: Land available for manufacturing purposes, railroad facilities, and water power available; local facilities, such as gas and electric-light plants, electric railways, etc.; raw materials and natural products; idle workshops and factories; industries wanted, by towns; industries wanted, by industries; summer resorts, and tax rebates.

STATISTICS OF MANUFACTURES, 1903 AND 1904.—This is the nineteenth of a series of annual reports on manufacturing statistics. The statistics presented were compiled from the returns of 4,730 establishments, each of which made a report for the two years under consideration. Comparative tables are given, showing for the years 1903 and 1904 the number of private firms, corporations, and industrial combinations; number of partners in firms, and stockholders in corporations, by sex, etc.; capital devoted to production, 1903; capital invested, 1904; cost of material used and value of product; the smallest, greatest, and average number of persons employed, and aggregate employees, by months; total wages paid during each year, average yearly earnings per employee, and classified weekly wages in selected industries, by sex and age; days in operation during each year, and proportion of business done. Seventy-nine classified industries are represented.

The principal facts as to ownership are shown in the following table:

FIRMS, CORPORATIONS, AND INDUSTRIAL COMBINATIONS, AND PARTNERS AND STOCKHOLDERS IN 4,730 IDENTICAL ESTABLISHMENTS, 1903 AND 1904.

Year.	Firms.	Corporations.	Industrial combinations.	Partners.	Stockholders.	Average partners to a firm.	Average stockholders to a corporation.
1903.....	3,085	1,469	20	4,777	56,115	1.55	38.20
1904.....	2,997	1,532	20	4,611	56,053	1.54	36.12

From the above table it will be seen that the tendency continues to be toward an increase of number of establishments controlled by corporations and a decrease of establishments under private control.

The following table presents statistics separately for 9 principal industries, in aggregate for 70 other industries, and totals for the 79 industries reported on for the years 1903 and 1904:

STATISTICS OF MANUFACTURES, 1903 AND 1904.

Industry.	Number of establishments.	Value of stock used.		Increase (+) or decrease (-).	
		1903.	1904.	Amount.	Per cent.
Boots and shoes	656	\$100,737,707	\$103,916,188	+\$3,178,481	+ 3.16
Carpentering	10	6,844,167	6,818,838	- 25,329	- .37
Cotton goods	106	78,274,573	82,407,903	+ 4,133,330	+ 5.28
Leather	105	20,846,121	20,548,240	- 297,881	- 1.42
Machines and machinery	375	22,932,922	20,240,029	- 2,712,893	- 11.82
Metals and metallic goods	393	26,017,516	21,771,869	- 4,245,647	- 16.32
Paper	81	16,953,773	17,737,702	+ 783,929	+ 4.62
Woolen goods	160	31,975,672	32,439,770	+ 464,098	+ 1.45
Worsted goods	43	26,763,110	30,668,362	+ 3,905,252	+ 14.59
Other industries (70)	2,741	236,775,893	233,660,311	- 3,115,582	- 1.32
Total	4,730	568,141,454	570,209,212	+ 2,067,758	+ .36

Industry.	Goods made and work done.			Wages paid.		
	1903.	1904.	Per cent of increase (+) or decrease (-).	1903.	1904.	Per cent of increase (+) or decrease (-).
Boots and shoes	\$159,983,193	\$165,709,642	+ 3.58	\$34,498,626	\$34,586,282	+ 0.25
Carpentering	11,209,336	9,654,392	- 13.87	2,238,164	2,021,859	- 9.66
Cotton goods	134,741,484	132,564,840	- 1.62	37,105,519	32,267,548	- 13.04
Leather	29,719,280	29,228,192	- 1.65	3,597,466	3,842,277	+ 6.81
Machines and machinery	58,484,782	51,942,230	- 11.19	18,721,781	17,139,626	- 8.45
Metals and metallic goods	49,207,591	44,760,700	- 9.04	13,257,588	11,704,292	- 11.72
Paper	30,202,100	31,921,767	+ 5.69	5,104,929	5,450,723	+ 6.77
Woolen goods	56,893,318	54,501,657	- 4.20	11,264,047	11,003,103	- 2.32
Worsted goods	46,032,840	46,426,816	+ .86	7,354,201	7,291,478	- .85
Other industries (70)	430,075,539	430,747,398	+ .16	76,951,513	77,275,061	+ .42
Total	1,006,549,483	997,457,634	- .90	210,093,834	202,582,249	- 3.58

In six of the leading industries, and in the total for all industries, there was a decrease in 1904 in the value of product as compared with that for 1903, while in three of the leading industries an increase was shown for the year 1904. The greatest increase was in the paper industry, viz, 5.69 per cent. There was an increase in the amount of wages paid in three of the leading industries in 1904, as compared with 1903, the greatest increase being in the leather industry, where it was 6.81 per cent, while the value of product decreased 1.65 per cent. The increase per cent in value of product and in wages paid in the paper industry differ but little. While the value of manufactured products in the worsted goods industry increased 0.86 per cent, the amount paid in wages fell off 0.85 per cent. There seems to have been a general decline in 1904 both in the value of products and in the amount paid for wages, as compared with 1903.

In 1903 the capital devoted to production in the 79 industries amounted to \$548,314,237, and in 1904 the capital invested amounted to \$807,433,857.

The table following presents data relative to employees, ear and days in operation, the establishments considered being as in the preceding table:

AVERAGE NUMBER OF EMPLOYEES, AVERAGE YEARLY EARNINGS, AND AVERAGE DAYS IN OPERATION IN 9 PRINCIPAL INDUSTRIES, IN 70 OTHER INDUSTRIES, AND IN ALL INDUSTRIES, 1903 AND 1904.

Industry.	Average number of employees.			Average yearly earnings.			Average days in operation.		
	1903.	1904.	Per cent of increase (+) or decrease (-).	1903.	1904.	Per cent of increase (+) or decrease (-).	1903.	1904.	Per cent of increase (+) or decrease (-).
Boots and shoes....	66,797	66,692	- 0.16	\$516.47	\$518.60	+0.41	294.16	295.20	+0.35
Carpetings.....	5,062	4,774	- 5.69	442.15	423.51	- 4.22	303.63	290.20	- 4.42
Cotton goods.....	94,270	88,138	- 6.50	303.61	306.10	- 0.99	290.51	279.66	- 3.73
Leather.....	7,200	7,695	+ 6.88	499.65	499.32	- .07	298.46	300.39	+ .65
Machines and machinery.....	32,491	29,520	- 9.14	576.21	580.61	+ .76	298.24	300.59	+ .79
Metals and metallic goods.....	24,024	21,411	- 10.88	551.85	546.65	- .94	297.04	303.38	+ 2.13
Paper.....	10,964	11,542	+ 5.27	465.61	472.25	+ 1.43	284.88	294.12	+ 3.24
Woolen goods.....	26,659	26,178	- 1.80	422.52	420.32	- .52	292.16	297.23	+ 1.74
Worsted goods.....	18,805	18,262	- 2.89	391.08	399.27	+ 2.09	285.36	301.96	+ 5.82
Other industries(70)	159,297	159,171	- .08	483.07	485.48	+ .50	294.11	294.92	+ .28
Total.....	445,569	433,383	- 2.73	471.52	467.44	- .87	293.28	293.12	- .05

Only two of the principal industries show an increase in the average number of employees in 1904 as compared with 1903. In the leather industry the increase in the number of employees was 6.88 per cent, and in the paper industry 5.27 per cent. Average yearly earnings increased in 1904 over 1903 in the following industries: Boots and shoes, machines and machinery, paper and worsted goods, and declined in carpetings, cotton goods, leather, metals and metallic goods, and woolen goods. The number of days in operation increased in seven of the nine principal industries. In all industries a decrease is shown in the three items of average employees, average earnings, and average days in operation.

The table following shows the number of employees earning the indicated weekly wages. The number of employees given is the number reported in each industry for the week showing the largest number of employees, and does not, therefore, agree with the number shown in the preceding table:

NUMBER OF MALE AND FEMALE ADULTS AND OF YOUNG PERSONS IN 79 INDUSTRIES, BY CLASSIFIED WEEKLY WAGES, 1903 AND 1904.

Classified weekly wages.	1903.				1904.			
	Persons 21 years of age or over.		Young persons (under 21).	Total.	Persons 16 years of age or over.		Young persons (under 16).	Total.
	Males.	Females.			Males.	Females.		
Under \$5.....	7,738	14,592	29,656	51,986	15,737	28,691	12,374	56,802
\$5 or under \$6.....	8,582	16,383	17,062	42,027	14,231	24,699	2,367	41,297
\$6 or under \$7.....	17,100	24,419	12,469	53,988	22,794	29,700	966	53,460
\$7 or under \$8.....	25,975	20,088	6,276	52,339	29,316	22,860	283	52,459
\$8 or under \$9.....	27,634	16,568	3,139	47,341	30,543	17,759	101	48,403
\$9 or under \$10.....	41,734	13,820	1,772	57,326	39,616	13,776	30	53,422
\$10 or under \$12.....	50,229	10,647	1,022	61,898	50,782	10,948	9	61,739
\$12 or under \$15.....	58,703	4,978	467	64,148	57,374	5,019	.....	62,393
\$15 or under \$20.....	48,935	1,519	89	50,543	48,554	1,463	.....	50,017
\$20 or over.....	16,568	164	14	16,746	16,468	145	.....	16,613
Total.....	303,198	123,178	71,966	498,342	325,415	155,060	16,130	496,605

The figures in the above table are not comparable, except as to the totals in the last column under each year, due to the fact that a different form of question was used in 1904 from that used in 1903 and in previous years.

In order to show the actual result of the productive forces of industry, the element of cost of material must be deducted from the total value of product, and the remainder will show only the industry product, or the new values created. This has been done in the case of the nine leading industries; also the division of industry product between the wage fund and the fund devoted to profit and minor expenses, as freight, insurance, interest, rent, commissions, salaries, etc. The results for the years 1903 and 1904 appear in the table following:

INDUSTRY PRODUCT, WAGES, AND PROFIT AND EXPENSES IN NINE SELECTED INDUSTRIES, 1903 AND 1904.

1903.

Industry.	Industry product.	Wages.	Profit and minor expenses.	Per cent of industry product.	
				Paid in wages.	Devoted to profit and minor expenses.
Boots and shoes.....	\$59,245,486	\$34,498,626	\$24,746,560	58.23	41.77
Carpetings.....	4,365,169	2,238,164	2,127,005	51.27	48.73
Cotton goods.....	56,466,911	37,105,519	19,361,392	65.71	34.29
Leather.....	8,873,159	3,597,466	5,275,693	40.54	59.46
Machines and machinery.....	35,531,860	18,721,781	16,810,079	52.69	47.31
Metals and metallic goods.....	29,190,075	13,257,588	9,932,487	57.17	42.83
Paper.....	13,248,327	5,104,929	8,143,398	38.53	61.47
Woolen goods.....	24,917,646	11,264,047	13,653,599	45.21	54.79
Worsted goods.....	19,209,730	7,354,201	11,915,529	38.16	61.84

1904.

Boots and shoes.....	\$61,793,454	\$34,586,282	\$27,207,172	55.97	44.03
Carpetings.....	2,835,554	2,021,859	813,695	71.30	28.70
Cotton goods.....	50,156,937	32,267,548	17,889,389	64.33	35.67
Leather.....	8,679,952	3,842,277	4,837,675	44.27	55.73
Machines and machinery.....	31,702,201	17,130,626	14,562,575	54.06	45.94
Metals and metallic goods.....	22,988,831	11,704,292	11,284,539	50.91	49.09
Paper.....	14,184,065	5,450,723	8,733,342	38.43	61.57
Woolen goods.....	22,061,887	11,003,103	11,058,784	49.87	50.13
Worsted goods.....	15,758,454	7,291,478	8,466,976	46.27	53.73

In five of the nine industries, in 1903, more than one-half of the industry product was paid out in wages, the largest showing being in cotton goods, with 65.71 per cent, followed by boots and shoes, with 58.23 per cent, and metals and metallic goods, with 57.17 per cent. The industry devoting the lowest proportion of the industry product to labor was worsted goods, with 38.16 per cent. In 1904, likewise, five industries paid out more than one-half of the industry product in wages. The carpet industry paid the highest proportion, 71.30 per cent, and the paper industry the lowest, 38.43 per cent.

LABOR AND INDUSTRIAL CHRONOLOGY.—This chronology presents data on the following subjects for each of the cities and towns of the State for the year ending September 30, 1905: Strikes and lockouts, wages and hours of labor, trade unions, industrial changes, and workingmen's benefits. The chapter closes with a reprint of the labor laws enacted in Massachusetts in 1905.

Of the 158 labor disputes during the year 153 were strikes, 2 were lockouts, and 3 partook of the nature of both a strike and a lockout. The number of disputes shows a decrease of 40 from that of the previous year, and the strikes were of minor importance and involved a smaller number of persons. The trades in which labor disputes occurred, with the number of disputes in each, follow: Bakers, 2; boot and shoe workers, 21; bricklayers and masons, 4; carpenters, 7; plumbers and steam fitters, 3; other building trades, 6; garment workers, 7; granite cutters, 7; laborers, 12; metal workers, 11; teamsters and handlers, 17; textile workers, 45; and miscellaneous, 16. The following table shows the number of disputes, by causes and results:

STRIKES AND LOCKOUTS, BY CAUSES AND RESULTS, YEAR ENDING SEPTEMBER 30, 1905.

Cause.	Result.					Total.
	Succeed- ed.	Comprom- ised.	Failed.		Result unknown.	
			Strikers rein- stated.	Places filled.		
Against discharge of employees.....	2	1	3	4		10
Against nonunion employees.....	4		2	5	2	13
Against objectionable employees.....			1	2		3
Against reduction in wages.....	3	3	4	2	1	13
Against ten-loom system and electric warp-stop motion.....	3	3	4	2		12
Against violation of agreement.....	1	1		1		3
Against working conditions.....	1	1	4	2		8
For increase of wages.....	10	11	7	8	10	46
For increase of wages and better work- ing conditions.....		3				3
For increase of wages and shorter work- day.....	1	3	2		1	7
For recognition of union and eight-hour day.....	1	1		3	3	8
For shorter workday.....	5	2	3	4		14
In sympathy.....			1	3		4
Miscellaneous.....	6	1	1	5	1	14
Total.....	37	30	32	41	18	158

There were 69 wage disputes—46 for increase, 13 against reduction, and 10 for increase in combination with other causes. Of this number 14 succeeded, 20 were compromised, 23 failed, and for 12 the results are not stated. Of the 158 strikes and lockouts 37 succeeded, 30 were compromised, 73 failed, and for 18 the results are not stated. Of 110 disputes, returns were complete as to number

of persons directly involved and working days lost. The following table shows these items:

NUMBER AND DURATION OF DISPUTES, PERSONS DIRECTLY INVOLVED, AND WORKING DAYS LOST, YEAR ENDING SEPTEMBER 30, 1905.

Duration of disputes.	Number of disputes.	Persons directly involved.	Working days lost.	Duration of disputes.	Number of disputes.	Persons directly involved.	Working days lost.
1 day.....	13	631	631	18 days.....	3	1,040	18,720
2 days.....	18	942	1,884	19 days.....	1	15	285
3 days.....	15	1,068	3,204	20 days.....	1	25	500
4 days.....	11	462	1,848	21 days.....	1	160	3,360
5 days.....	3	83	415	24 days.....	3	83	1,992
6 days.....	9	530	3,180	30 days.....	2	163	4,890
7 days.....	8	735	5,145	38 days.....	1	14	532
8 days.....	2	65	520	48 days.....	2	275	13,200
9 days.....	1	135	1,215	54 days.....	2	253	13,662
10 days.....	2	131	1,310	84 days.....	1	40	3,360
11 days.....	1	7	77	150 days.....	1	30	4,500
12 days.....	5	298	3,576				
13 days.....	3	155	2,170	Total.....	110	7,355	90,416
16 days.....	1	15	240				

When considered with previous years, comparatively few changes in wages and working hours were reported for the year. The granting of the Saturday half holiday during the summer months, and in some occupations during the entire year, is becoming more general each year. All classes commended the early closing hour for retail stores. Where uniformity exists and working rules and closing hours are strictly adhered to in the same locality among one craft, it can not be said to have proved disadvantageous to the employers.

The information relative to trade unions gives for the year the new unions formed, new affiliations, disbanding of old unions, growth of the closed shop, conditions of employment, consideration given labor legislation, etc. As recorded, numerically the trade unions have decreased rather than increased, since nearly 175 unions went out of existence during the year, while less than 100 new ones were formed. This does not necessarily mean a proportional decrease in trade-union membership. There were more amalgamations of unions of allied crafts during the year than had taken place for some time. About 250 locals and 37 central bodies are now affiliated with the State branch of the American Federation of Labor. While the unions continued generous in voting financial aid to members of trade unions on strike, it is a noticeable fact that the moral assistance in the way of ordering sympathetic strikes was certainly on the wane.

Of industrial changes during the year, 203 new establishments were incorporated, with an authorized capital stock of \$20,676,000; 161 private firms were changed to corporations, with an authorized capital stock of \$9,094,900, and there were 80 reorganizations with an authorized capital stock of \$16,623,000, making a total

manufacturing establishments incorporated, with an authorized capital stock of \$46,393,900. There were 217 new factories erected, 172 additions to factories, and 27 factories or additions in process of construction. Twenty industrial plants came into the State from other States, 10 moved out of the State, and 42 moved from one part of the State to another. There were during the year 282 new firms which began operations and 45 firms went out of business; also 435 changes in firms and 59 changes in or additions to product. There were 85 temporary shut downs, covering 482 weeks, 29 shut downs of unknown length, and 10 indefinite shut downs.

Under workingmen's benefits is recorded the action taken by employers to improve the condition of their employees or measures taken by trade unions or employees themselves for the betterment of the social and industrial condition of the workingmen.

MICHIGAN.

Twenty-second Annual Report of the Bureau of Labor and Industrial Statistics, including the Twelfth Annual Report of the Inspection of Factories. 1905. Scott Griswold, Commissioner, xxii, 512 pp.

In addition to factory, store, hotel, and tenement-house inspection and the work of women inspectors (286 pages), the following subjects are presented in this report: State court of mediation and arbitration, 15 pages; penal and reformatory institutions, 10 pages; statistics of farm and domestic labor, 35 pages; statistics of electrical railways, 6 pages; the coal industry, 10 pages; special industries, 13 pages; classification of labor and wages, 14 pages; the Portland cement industry, 18 pages; manufacture of beet sugar, 30 pages; manufacture of cigars, 40 pages; manufacture of salt, 6 pages; special mention of industrial firms, 10 pages; laws enforced by the department, 15 pages.

STATE COURT OF MEDIATION AND ARBITRATION.—Under this title is presented the first biennial report of the State court of mediation and arbitration, and covers the operations of that body for the years 1903 and 1904. It contains the recommendations of the court and a discussion of the difficulties in arbitration; also a history is given of the labor disputes occurring in the State for the years 1903 and 1904, by locality and occupation, with the number of persons involved, cause, and result of each dispute, etc.

STATISTICS OF FARM AND DOMESTIC LABOR.—Tables are given showing by counties and townships for the four sections into which the State was divided the number of farmers canvassed; average size of farms; number of males employed by the year, month, and day; average number of months worked per year; average monthly wages, including board; estimated average value of board; number of farmers

employing females for domestic work; average weekly wages of these employees, including board; estimated average value of board, etc.

The following summary is compiled from the entire canvass, the returns being for the year 1904:

Number of farmers canvassed.....	5,922
Number reporting scarcity of farm laborers.....	3,782
Average size of farms (acres).....	165
Number of farm laborers employed by the year.....	1,665
Number of farm laborers employed by the month.....	5,086
Number of farm laborers employed by the day.....	3,754
Average months worked per year.....	8.5
Average monthly wages of laborers, with board.....	\$23.11
Estimated average value of board per month.....	\$12.00
Number employing domestic female labor.....	1,521
Number reporting scarcity of female labor.....	3,300
Average weekly wages of domestics, with board.....	\$2.23
Estimated average value of board per week.....	\$2.32
Number of children under 16 years of age employed as wage-earners.....	269

STATISTICS OF ELECTRIC RAILWAYS.—Under this caption a table is given showing for each of 25 lines reporting in 1904 the miles of single track operated, average number of employees, and number of passengers carried. Statistics were compiled showing for the year 1904 the following items: Capital stock, \$34,075,000; value of lines and equipment, \$45,000,000; miles of road, measured as single track, 1,158; amount expended during the year for permanent improvement, \$1,682,718; amount received from passenger traffic, \$6,581,275; from other sources, \$328,926; number of cars operated, 1,429; passengers carried, 151,001,029; average fare for each passenger carried, 4½ cents; amount paid for wages, \$3,499,978.

The following table gives the number of employees, by occupation, and average daily hours of labor and average daily wages:

WAGES AND HOURS OF LABOR OF EMPLOYEES ON 25 ELECTRIC RAILWAYS, 1904.

Occupation.	Em- ploy- ees.	Aver- age daily hours.	Aver- age daily wages.	Occupation.	Em- ploy- ees.	Aver- age daily hours.	Aver- age daily wages.
Linemen.....	82	10	\$2.30	Firemen.....	77	11	\$1.86
Inspectors.....	97	10	2.11	Others.....	41	11	1.67
Machinists.....	50	10	2.02	Carpenters.....	85	10	2.24
Clerks, etc.....	243	9	1.90	Painters.....	68	10	1.96
Conductors.....	1,276	10	2.02	Car house men.....	218	11	1.40
Motormen.....	1,247	10	2.05	Track laborers.....	1,214	10	1.51
Electricians.....	44	10	2.24	Unclassified.....	210	10	1.72
Engineers.....	53	11	2.94				

THE COAL INDUSTRY.—The following table summarizes for 1903 and 1904 the statistical part of the report on this industry:

COAL MINING STATISTICS, 1903 AND 1904.

Items.	1903.	1904.
Mines in operation.....	30	28
Average number of employees.....	3,149	2,714
Average daily hours of labor.....	7.7	7.7
Average days worked per month.....	21.4	18.3
Average daily wages, all employees.....	\$2.91	\$3.01
Production in tons.....	1,581,346	1,414,834
Total cost of production.....	\$2,482,000	\$2,286,160
Cost of production per ton.....	\$1.57	\$1.62

A table is also given showing, by counties, the accidents occurring in coal mines during the year from December 4, 1903, to November 26, 1904.

SPECIAL INDUSTRIES.—This chapter is devoted to certain special industries, and discusses their development, class of manufacture, capital invested, output, number of employees, etc. Among the industries mentioned are thrashing machines and engines, grape juice, furniture, and stoves.

CLASSIFICATION OF LABOR AND WAGES.—A canvass was conducted in 1904 among the employees of factories and workshops in every county of the State where factories are operated, the object being to collect information in regard to daily hours and wages in classified occupations. Data were collected from 212,868 employees. The total amount paid to these employees in 11 months for salaries and wages was \$107,738,039. Daily hours of labor averaged 9.8. The following table gives comparative figures for 1903 and 1904:

NUMBER AND AVERAGE DAILY WAGES OF PERSONS EMPLOYED IN FACTORIES AND WORKSHOPS, 1903 AND 1904.

Factory employees.	1903.		1904.	
	Number.	Average daily wages.	Number.	Average daily wages.
Superintendents.....	5,276	\$4.43	6,155	\$4.32
Foremen.....	7,419	2.86	7,193	2.91
Office clerks, males.....	5,977	2.61	6,329	2.70
Office clerks, females.....	3,709	1.33	3,727	1.36
Wage-earners, male adults.....	164,482	1.83	153,045	1.83
Wage-earners, female adults.....	31,259	.95	31,290	1.01
Wage-earners, male, between 14 and 16 years of age.....	3,666	.76	3,404	.79
Wage-earners, female, between 14 and 16 years of age.....	1,511	.65	1,725	.64
Total.....	223,299	1.75	212,868	1.77

PORTLAND CEMENT INDUSTRY.—Under this title is given a list of the cement plants in the State, with their daily capacity, number of employees, wages paid, etc. During the year 1904, 14 plants were in operation, the cost of which aggregated \$7,550,781. Employment was furnished to 1,500 persons, 25 per cent being classe

labor. The average daily wages of all employees were \$2.20; of skilled labor, \$3.93; the total amount paid in wages for the year was (for 12 plants) \$943,200.

MANUFACTURE OF BEET SUGAR.—There were 16 plants in operation during the year 1904. Besides these 3 other plants were canvassed for data. The cost of the 19 plants aggregated \$12,390,000. The product of those in operation amounted to 110,000,000 pounds of sugar, requiring 449,072 tons of beets, grown on 59,634 acres of land. The number of skilled laborers employed was 512, with an average daily wage of \$2.82; the number of unskilled laborers employed was 2,910, with an average daily wage of \$1.82. The plants were in operation on an average 59 days each.

MANUFACTURE OF CIGARS.—Cigar factories to the number of 525 were canvassed in 68 of the counties of the State, tho over 50 per cent of the output was the product of factories in Wayne County, with the city of Detroit. The hours of daily labor averaged 8.2; average daily earnings ranged from \$3.08 for superintendents to \$2.88 for foremen, and \$2.18 for ordinary cigar makers. The trade is fairly well organized, there being 430 union, 55 open, and 40 nonunion shops. The aggregate capital invested amounted to \$1,513,125, and the value of product for the year was \$6,481,637. The following table shows the number and average daily wages of the different classes of employees in the cigar industry in 1904:

NUMBER AND AVERAGE DAILY WAGES OF EMPLOYEES IN CIGAR FACTORIES, 1904

Classified employees.	Number.	Average daily wages.	Classified employees.	Number.	Average daily wages.
Superintendents.....	401	\$3.08	Female employees.....	2,716	\$1.15
Foremen.....	160	2.88	Children under 16 years of age.....	560	.37
Packers.....	269	1.78	Total.....	6,111	1.38
Shipping clerks.....	31	1.76			
Other male employees.....	1,974	2.18			

MANUFACTURE OF SALT.—In 1904 statistics were secured from 41 plants, and the following summary gives the principal items concerning the operation of these plants: Total cost of all plants, \$2,358,762; average annual cost of repairs, \$137,598; product, 4,689,626 barrels; persons employed, 1,365; total wages paid, \$741,150; average daily wages, \$1.81.

SPECIAL MENTION OF INDUSTRIAL FIRMS.—Under this head special mention is made of 22 industrial firms, naming the industry in which engaged, capital invested, provisions for the health and comfort of employees, volume and value of product, number of employees, amount of annual pay roll, etc.

LAWS ENFORCED BY THE DEPARTMENT.—This consists of a reproduction of the laws of the State bearing on labor, and which it is the duty of the department to enforce.

NEBRASKA.

Ninth Biennial Report of the Bureau of Labor and Industrial Statistics for the years 1903 and 1904. Burrett Bush, Deputy Commissioner. 204 pp.

The subjects presented in this report are: Suggested legislation and labor laws, 19 pages; child labor, 43 pages; strikes, 2 pages; fire escape and female and child labor law enforcement, 3 pages; the value of statistics, 10 pages; the value of statistics to Nebraska, 8 pages; industrial and social statistics, 89 pages.

SUGGESTED LEGISLATION AND LABOR LAWS.—In connection with the reproduction of the present labor laws of the State, the commissioner of the bureau suggests the enactment of additional legislation in the interest of labor, based on the experience gained in the performance of the duties of his office.

CHILD LABOR.—Under this caption is presented a discussion of what constitutes effective child-labor laws, followed by an analysis of the various forms of child-labor legislation in the several States.

STRIKES.—Brief accounts are given of three important strikes, involving 7,050 persons, which occurred during the biennial period of 1903 and 1904, viz, the Union Pacific Railroad strike, the teamsters' strike of Omaha, and the packing house strike of South Omaha.

FIRE ESCAPE AND FEMALE AND CHILD LABOR LAW ENFORCEMENT.—The enforcement of the law relating to fire escapes and that relating to the employment of female and child labor as required of the State labor commissioner is briefly detailed in this section of the report.

THE VALUE OF STATISTICS.—Two parts of the report are embraced under this caption. The first part, "The value and influence of labor statistics," is a reproduction of an article on the subject by Carroll D. Wright; the second part, "The value of statistics to Nebraska," consists of an outline of the object and work of the labor bureau, together with the opinion of leading citizens of the State on the value of the bureau as a means of disseminating statistical and other information regarding the State.

INDUSTRIAL AND SOCIAL STATISTICS.—A variety of data is here presented. The statistics are partly the result of original inquiry and partly reproductions from State and Federal reports.

NEW YORK.

Fourth Annual Report of the Department of Labor, for the year ended September 30, 1904. Transmitted to the legislature April 17, 1905. John McMackin, Commissioner. 2 vols.

This general report embraces two volumes as follows: Volume I, Report of the commissioner of labor on the operations of the department, ninth annual report of the State free employment bureau in New York City, legislation and judicial decisions affecting the interests of working people, the open-shop question, the child-labor law, eighteenth annual report of the bureau of mediation and arbitration, and nineteenth annual report of the bureau of factory inspection; Volume II, Twenty-second annual report of the bureau of labor statistics.

REPORT OF THE COMMISSIONER.—This consists of a general review of the four distinct lines of work carried on by the State department of labor, viz, the enforcement of the factory and other labor laws (bureau of factory inspection); the adjustment of controversies between employers and employees (bureau of mediation and arbitration); the investigation of industrial conditions (bureau of labor statistics); the bringing together of employers seeking help and workers seeking positions (free employment bureau in New York City).

FREE EMPLOYMENT BUREAU.—Since its establishment in 1897 the work of the State free employment bureau has steadily increased. During the year 1904 there were 6,650 persons who made application for work, 3,754 men and 2,896 women. Of the men, 1,620 were native born and 2,134 were foreign born; 822 were married and 2,932 were single. Of the women, 999 were native born and 1,897 were foreign born; 1,473 were married and 1,423 were single. Of the 2,295 married people, 869 reported having 1,920 children depending on them for support. During the year 4,542 applications for help were made. There were 4,642 situations (covering 41 trades and vocations) secured, 1,004 by men and 3,638 by women.

THE OPEN-SHOP QUESTION.—The question of the open shop has, in most cases, been raised by recently organized associations of employers. This discussion of the question consists of a reproduction of various papers by students of economics bearing on the different phases of the subject, together with the attitude, as expressed in convention, of several religious bodies toward capital and labor.

THE CHILD-LABOR LAW.—On October 1, 1903, important amendments made by the legislature in 1903 to the various acts governing the employment of children went into effect. As a consequence of the advanced age requirements of the new legislation, the inspectors

found 13,389 children between 14 and 16 years of age in the factories visited in 1904, as compared with 18,160 in 1903, a reduction of 26.3 per cent. As the aggregate number of employees of all ages was approximately the same in each year, the proportion of child laborers declined from 21 per 1,000 laborers in 1903 to 15 per 1,000 in 1904. It is claimed that New York is freer from child labor than any other industrial State in the Union.

Eighteenth Annual Report of the Board of Mediation and Arbitration, for the year ended September 30, 1904. 205 pp.

This report contains an account of the labor disputes within the State for the year ending September 30, 1904, together with full particulars of the more important disputes within the period, the text of joint trade and industrial agreements, and the text of the laws governing the board of mediation and arbitration.

During the year ending September 30, 1904, the board of mediation and arbitration collected reports relative to 124 industrial disputes. The number of working people directly involved in these disputes was 57,308, while 51,225 more were thrown out of work as a result of the disputes. The number of working days lost by the workers directly concerned in the disputes was 1,840,554, while those indirectly affected lost 1,658,907, making a total of 3,499,461 working days lost.

Considering industries, the greatest number of disputes was in the building trades, it being 40, followed by 24 in metals, machinery, etc., 14 in transportation, etc., 9 in textiles, and 8 in clothing, etc. Increase of wages was the cause or object in 49 disputes, trade unionism in 30, reduction of wages in 12, reduction of hours in 9, and working arrangements in 6. Of results of disputes, 64 (involving 23,320 strikers) were in favor of employers, 26 (involving 3,655 strikers) were in favor of employees, and 34 (involving 30,333 strikers) were compromised.

The mode of settlement of the disputes reported was as follows:

* MODE OF SETTLEMENT OF DISPUTES, YEAR ENDING SEPTEMBER 30, 1904.

Mode of settlement.	Number of disputes.	Employees involved.
Direct negotiations.....	56	11, 854
Return to work on employers' terms.....	29	60, 134
Replacement of workers.....	31	2, 083
Mediation or conciliation.....	4	2, 712
Arbitration of trade boards.....	1	18, 359
Arbitration of individuals.....	1	300
No settlement.....	2	13, 091
Total.....	124	108, 533

In 56 disputes, involving 11,854 persons, the mode of settlement was by direct negotiations between the employers and the workmen. In 29 disputes, involving 60,134 persons, the employees returned to work on the employers' terms, while in 31 disputes, involving 2,083 persons, the employees were replaced by other workers.

Forty-two of the total disputes, involving 46,600 persons directly and 36,080 indirectly and resulting in a loss of 2,365,939 working days, were in New York City.

Twenty-second Annual Report of the Bureau of Labor Statistics, for the year ended September 30, 1904. lix, 864 pp.

The subjects presented in this report are: Trade unions in 1904, 22 pages; the state of employment, 12 pages; wages and earnings, 14 pages; changes in hours of labor, 3 pages; appendix (statistical tables), 857 pages.

TRADE UNIONS.—On September 30, 1904, there existed in the State 2,504 local trade unions and similar labor organizations, the aggregate membership of which was 391,676 working men and women. In the table following is shown the number of organizations and the membership, by sex, in each year from 1894 to 1904:

NUMBER OF TRADE UNIONS AND MEMBERSHIP, BY SEX, 1894 TO 1904.

Date.	Number of unions.	Membership.		
		Men.	Women.	Total.
July 1, 1894.....	860	149,709	7,488	157,197
July 1, 1895.....	927	170,129	10,102	180,231
October 31, 1896.....	962	(a)	(a)	170,296
September 30, 1897.....	1,009	162,690	5,764	168,454
September 30, 1898.....	1,087	163,562	7,505	171,067
September 30, 1899.....	1,330	200,932	8,088	209,020
September 30, 1900.....	1,635	233,553	11,828	245,381
September 30, 1901.....	1,871	261,523	14,618	276,141
September 30, 1902.....	2,229	313,592	15,509	329,101
September 30, 1903.....	2,583	380,845	14,753	395,598
September 30, 1904.....	2,504	378,859	12,817	391,676

a Not separately reported.

From the above it is seen that organized labor in New York failed to increase in numerical strength for the first time since 1897. Of the 2,504 trade unions in existence on September 30, 1904, 670 were located in New York City and 1,834 in other cities of the State, while of the 391,676 members, 254,719 belonged to New York City unions and 136,957 to unions in other places. The female members in all trade unions numbered 12,817, of whom 6,516 were in unions in the clothing and textile industries, 2,952 in unions in the tobacco industry, and 1,059 in unions in the printing, binding, etc., industry.

The membership of trade unions, by industries, on July 1 for the years 1894 and 1895, on October 31 for the year 1896, and on September 30 for the years 1897 to 1904 is shown in the table following:

MEMBERSHIP OF TRADE UNIONS, BY INDUSTRIES, 1894 TO 1904.

Industry.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.
Building, stoneworking, etc.	49,056	53,613	56,294	53,273	59,641	71,067	80,441	85,401	91,184	110,457	119,888
Clothing and textiles.	39,162	51,921	30,093	32,147	26,433	29,714	28,866	41,883	40,984	40,981	36,090
Metals, machinery, and shipbuilding.	9,860	11,376	13,010	13,991	16,236	24,014	31,271	35,562	51,749	48,230	36,971
Transportation.	18,197	18,191	23,031	23,014	18,090	24,668	30,854	34,371	36,901	61,749	71,859
Printing, binding, etc.	11,059	11,998	13,848	13,313	15,045	16,023	17,117	17,986	21,110	23,845	25,278
Tobacco.	8,722	9,089	9,799	9,097	8,889	8,886	12,349	10,210	11,633	12,435	12,354
Food and liquors.	5,661	6,541	7,503	6,965	6,812	8,391	9,430	9,451	13,371	19,246	18,833
Theaters and music.	5,688	7,327	7,306	6,920	9,346	9,518	9,698	11,688	11,588	11,674	13,614
Woodworking and furniture.	5,329	4,652	4,218	4,205	4,584	6,683	8,176	8,260	11,823	17,126	13,001
Restaurants and retail trade.	1,243	1,529	2,087	1,843	2,174	3,207	5,303	6,804	8,503	10,942	9,723
Public employment.	1,964	1,964	993	1,667	1,880	3,727	7,148	8,142	9,160	9,753	9,538
Miscellaneous.	1,256	2,030	2,114	1,989	1,937	3,122	4,728	15,095	29,160	24,527	
Total.	157,197	180,231	170,296	168,454	171,067	209,020	245,381	276,141	329,101	395,598	391,676

The number and membership of trade unions, by industries, for New York City and the State exclusive of New York City, on September 30, 1904, is shown in the following table:

NUMBER AND MEMBERSHIP OF TRADE UNIONS, BY INDUSTRIES, SEPTEMBER 30, 1904.

Industry.	Number of unions in—			Membership of unions in—		
	New York City.	Other localities.	The State.	New York City.	Other localities.	The State.
Building, stoneworking, etc.	197	484	681	89,052	30,836	119,888
Transportation.	72	300	372	34,977	36,882	71,859
Clothing and textiles.	69	99	168	26,758	9,332	36,090
Metals, machinery, and shipbuilding.	91	232	323	17,170	19,801	36,971
Printing, binding, etc.	35	83	118	20,614	4,664	25,278
Woodworking and furniture.	42	50	92	10,412	2,589	13,001
Food and liquors.	46	100	146	13,845	4,988	18,833
Theaters and music.	11	44	55	10,202	3,412	13,614
Tobacco.	15	52	67	8,363	3,991	12,354
Restaurants and retail trade.	11	94	105	3,655	6,068	9,723
Public employment.	27	90	117	7,647	1,891	9,538
Stationary engine tending.	29	68	97	8,176	4,526	12,702
Miscellaneous.	25	138	163	3,848	7,977	11,825
Total.	670	1,834	2,504	254,719	136,957	391,676

THE STATE OF EMPLOYMENT.—This chapter brings out the proportion of members of representative trade unions in the various industries not at work at the end of each month during 1904 and the causes of idleness. From the returns it appears that the state of employment was much less favorable thruout 1904 than in 1902. Compared with 1903, the conditions do not appear so unfavorable; but this is due to the exceptional amount of idleness produced in the summer of 1903 by the extensive disputes in the building trades of New York City. Were the building trades excluded, it would be found that the proportion of unemployed in 1904 exceeded that in 1902.

August. It was during the last three months of the year only that the relative amount of idleness was smaller in 1904 than in 1903. The mean proportion of idle members for 1904 was 16.9, as compared with 17.5 for 1903 and 14.8 for 1902.

The number of members of trade unions idle, by causes of idleness, at two periods (end of March and end of September) during the year 1903 and 1904 is shown in the table below:

MEMBERS OF TRADE UNIONS IDLE, BY CAUSES OF IDLENESS, IN 1903 AND 1904.

Cause of idleness.	End of March, 1903.		End of September, 1903.		End of March, 1904.		End of September, 1904.	
	Number idle.	Per cent.	Number idle.	Per cent.	Number idle.	Per cent.	Number idle.	Per cent.
Lack of work.....	23,987	57.2	18,328	53.9	34,065	33.4	21,718	30.1
The weather.....	8,530	20.4	677	2.0	36,600	35.2	968	2.5
Strike or lockout.....	4,470	10.7	30,153	29.5	25,723	24.7	10,593	28.1
Lack of material.....	524	1.3	832	2.5	1,213	1.2	952	2.5
Disability.....	3,344	8.0	1,903	5.8	3,898	3.7	1,873	4.9
Other reasons.....	905	2.1	2,010	5.8	1,573	1.5	1,140	3.1
Reason not stated.....	141	.3	157	.5	303	.3	130	.4
Total.....	41,941	100.0	34,370	100.0	103,065	100.0	37,390	100.0

Of the various industries, at the end of March, 1904, there were 60,361 members of trade unions idle in building, stoneworking, etc., 13,318 in transportation, 9,601 in clothing and textiles, 5,232 in metals, machinery, etc., 4,136 in printing, binding, etc., and 3,174 in woodworking. At the end of September, 1904, there were 11,674 members idle in building, stoneworking, etc., 6,500 in transportation, 5,521 in clothing and textiles, 4,213 in metals, machinery, etc., 1,880 in printing, binding, etc., and 2,243 in woodworking.

WAGES AND EARNINGS.—This chapter presents changes in rates of wages and the number of working people affected by these changes as reported by manufacturers and by members of labor organizations, together with the average daily and average quarterly earnings of members of labor organizations. During the twelve months ending September 30, 1904, 19,182 members of trade unions received an increase of wages averaging \$1.59 a week for each member affected, while 1,102 sustained a decrease in weekly wages averaging \$2.30 each. All the changes together, however, were equivalent to an average net increase of \$1.38 per week per member. In addition to the trade union reports, incomplete returns from manufacturers showed changes affecting 562 employees. All these received increases, which averaged \$1.28 per week per person. Less than one-third as many workmen received advances in 1904 as in 1903, the average advance was lower, and about three times as many suffered reductions which averaged much greater than those of 1903. Comparing the total number affected by changes with the union membership in the State at the middle of each year, it was found that 34 per cent of the unionists in the State were affected by changes in 1902, 18 per cent in 1903, and 5 per cent in 1904, which resulted in average net weekly increases of \$1.68, \$1.79, and \$1.38, respectively.

The average earnings of the organized men and women, by industries, for six months of 1904, are set forth in the following table:

AVERAGE EARNINGS OF ORGANIZED WORKING PEOPLE, BY INDUSTRIES, FOR SIX MONTHS OF 1904.

Industry.	Average earnings of men, 1904.			Average earnings of women, 1904.		
	First quarter.	Third quarter.	Six months.	First quarter.	Third quarter.	Six months.
Building, stoneworking, etc.	\$161.41	\$213.41	\$374.82			
Transportation	182.79	188.95	371.74	\$122.20	\$120.88	\$243.08
Clothing and textiles	139.58	130.76	270.34	85.72	62.05	147.77
Metals, machinery, etc.	191.48	202.90	394.38	64.55	56.24	120.79
Printing, binding, etc.	221.11	222.06	443.17	108.09	117.63	225.72
Woodworking and furniture	174.22	171.09	345.91	73.09	73.86	146.95
Food and liquors	168.05	187.76	349.81	76.70	90.25	166.95
Theaters and music	295.99	291.16	587.15	421.30	375.57	796.87
Tobacco	132.95	136.46	269.41	99.84	112.68	212.52
Restaurants and retail trade	157.74	168.32	326.06	82.56	94.89	177.39
Public employment	211.33	215.04	426.37	140.03	160.65	300.68
Stationary engine tending	212.50	225.06	437.56			
Miscellaneous	150.85	152.49	303.34	72.64	79.43	152.07
All industries	175.62	195.58	371.20	122.78	113.30	236.08

CHANGES IN HOURS OF LABOR.—During the year ending September 30, 1904, the labor unions reported changes in the normal working time of 6,962 organized wage-earners. The changes were mostly in the nature of reductions in the weekly hours of labor, but there were some cases of an increase. An average reduction of 5.5 hours was made in the weekly schedule affecting 6,896 working people, while 66 workmen had their weekly schedule increased by an average of 26.1 hours. The number affected by reductions in 1904 was much smaller than in any one of the preceding three years, the number being 26,147 in 1901, 61,853 in 1902, and 21,636 in 1903.

The following table shows, by industries, the changes in hours per week and the number of organized workers affected:

CHANGES IN WEEKLY HOURS OF LABOR OF MEMBERS OF LABOR ORGANIZATIONS AND MEMBERS AFFECTED, AS REPORTED BY LABOR UNIONS FOR THE YEAR ENDING SEPTEMBER 30, 1904.

Industry.	Decrease per week.			Increase per week.			Net change per week.		
	Mem- bers af- fected.	Total hours.	Aver- age hours.	Mem- bers af- fected.	Total hours.	Aver- age hours.	Mem- bers af- fected.	Total de- crease of hours.	Aver- age de- crease of hours.
Building, etc.	1,065	4,978	4.7	60	1,680	28.0	1,125	3,298	2.9
Transportation	1,563	14,624	9.4	6	42	7.0	1,569	14,582	9.3
Clothing and textiles	260	1,410	5.4				260	1,410	5.4
Metals, machinery, etc.	346	1,579	4.6				346	1,579	4.6
Printing	1,704	3,326	2.0				1,704	3,326	2.0
Woodworking	76	456	6.0				76	456	6.0
Food and liquors	340	2,846	8.4				340	2,846	8.4
Restaurants and retail trade	175	1,050	6.0				175	1,050	6.0
Stationary engine tending	125	2,925	23.4				125	2,925	23.4
Miscellaneous	1,242	4,864	3.9				1,242	4,864	3.9
Total	6,896	38,058	5.5	66	1,722	26.1	6,962	36,336	5.2

Of the 1,065 workers in the building trades that secured a shorter workday, 374 won the eight-hour day, while all of the others, with the eight-hour day already won, established in addition the Saturday half holiday. In 1904 the total number of union workers who secured the eight-hour day was 1,155, as compared with 5,833 in 1903.

RECENT FOREIGN STATISTICAL PUBLICATIONS.

AUSTRIA.

Bleivergiftungen in Hüttenmännischen und Gewerblichen Betrieben. Ursachen und Bekämpfung. K. K. Arbeitsstatistisches Amt im Handelsministerium. I. Teil. Bericht über Erhebungen in Blei- und Zinkhütten. 1905. viii, 51 pp.

This report presents the results of an investigation into the labor conditions in Austrian lead and zinc works, with special reference to the causes producing lead poisoning and the means of preventing such poisoning. The investigation was conducted in 1904, by a commission composed of representatives of the ministry of commerce, the ministry of agriculture, and a number of medical experts. It was undertaken in consequence of resolutions adopted by the International Workingmen's Protective Union at its conventions held at Cologne in 1902 and at Basle in 1904, and in consequence of an interpellation of a member of the Lower House of the Austrian Parliament March 26, 1903, regarding the question of collecting data which might form a basis for the enactment of special measures for the hygienic protection of workingmen employed in lead works.

The report covers nine establishments and is based upon the observations of the commission thru personal inspection of the works. It is accompanied by 32 photographic views and 9 diagrams, illustrating buildings, sections of plants, various operations in the smelting processes, dining and wash rooms, and sleeping rooms for unmarried employees.

The data collected show for each establishment the character and quantity of the product, the number and occupations of employees, the hours of labor, wages, the conditions governing employment, the location of the plant, with a description of its surroundings, an account of the various operations in smelting, the sanitary arrangements of the plant, and the sanitary condition of the employees.

The following data relate to the imperial smelting works located at Pöföram in Bohemia, which is the largest and most important of the nine establishments visited by the commission, employing over 50 per cent of the total number of persons in the establishments investigated.

The total number of male employees on April 15, 1904, exclusive of engineers and firemen, was 460. Of this number 101 had been employed at the works 5 years or less, 98 between 5 and 10 years, 148 between 10 and 20 years, 104 between 20 and 30 years, and 9 over 30 years. From this it appears that 43 per cent had been employed at the works less than 10 years, and 57 per cent 10 years or over.

The hours of labor vary according to the character of the work. Calciners, mixers, chargers, and all others engaged in the direct operations of smelting and refining, work in shifts of 8 hours each; for blacksmiths, masons, carpenters, and day laborers the shift is eleven hours, including one hour intermission at noon; all other employees, as crushers, preparers, engineers, and firemen, work in 12-hour shifts, including an intermission of 2 hours.

Applicants for permanent employment must be at least 14 and not over 40 years of age, and must pass a physical examination conducted by the physician who is connected with the establishment. Young persons are first employed as messenger boys, helpers, blacksmiths' apprentices, or in other occupations not injurious to their health or which might retard their physical development.

Females are employed as day laborers in separating slag and in removing cinders, or as masons' helpers, charwomen, etc. The number of these is not large, being 21 out of a total of 499 employees on December 31, 1903.

All employees are members of the Miners' Provident Association, which provides for the payment of sick and funeral benefits, invalidity pension, and widows' and orphans' relief benefits.

The majority of employees live in the immediate vicinity of the works. Many of them own their homes, for the acquisition of which loans were advanced to them by the Miners' Provident Association.

A bath house for the use of employees is supplied with a continuous flow of warm water, and affords facilities for thoro cleansing after each shift.

During the summer months the bath is used daily by about 30 men, on Saturdays usually by about 100 men. Adjacent to the bath house are two smaller buildings furnished with bath tubs and vapor baths, mainly for the use of foremen.

For the purpose of affording first relief in cases of accident, a small building, consisting of two rooms and furnished with the necessary appliances, has been set apart by the establishment in conformity with the regulations prescribed by the ministry of agriculture, and 30 men have been instructed for this service by the physician.

The following table presents statistics of sickness which occurred among the members of the Miners' Provident Association of Příbram during the years 1894 to 1903:

STATISTICS OF SICKNESS AMONG EMPLOYEES IN THE MINES AND LEAD WORKS AT
PŘIBRAM, BOHEMIA, FOR EACH YEAR, 1894 TO 1903.

MINE EMPLOYEES.

Year.	Number of employees.	Lead colic.		Chronic catarrh of the stomach.		Habitual constipation.		All cases of sickness.			
		Number of cases.	Days of sickness.	Number of cases.	Days of sickness.	Number of cases.	Days of sickness.	Number of cases.	Per cent of employees. (a)	Days of sickness.	Average days of sickness per employee. (a)
1894.....	4,856			51	996	3	98	3,061	63.0	52,809	10.9
1895.....	4,681			43	486	10	135	2,684	57.3	40,188	8.6
1896.....	4,503			27	1,020			2,263	50.3	39,802	8.8
1897.....	4,306			22	538	19	198	1,787	41.5	33,821	7.9
1898.....	4,181			33	1,213	9	74	1,870	44.7	32,922	7.9
1899.....	4,057			47	931	6	45	2,064	50.9	36,892	9.1
1900.....	3,938			51	1,193	3	116	2,042	51.9	35,981	9.1
1901.....	3,610			25	507	11	93	1,891	52.4	31,835	8.8
1902.....	3,693			46	687	2	43	1,554	42.1	26,600	7.2
1903.....	3,593			32	690	11	95	1,545	43.0	30,036	8.4
Average.....	4,141.8			37.7	826.1	7.4	89.7	2,076.1	50.1	36,088.6	8.7

EMPLOYEES IN WORKS.

1894.....	357	22	500	22	342	18	195	483	135.3	6,288	17.6
1895.....	365	20	227	9	87	28	219	492	134.8	5,026	13.8
1896.....	395	22	434	4	85	13	154	319	80.8	5,568	14.1
1897.....	462	8	140	5	112	12	184	310	67.1	5,258	11.4
1898.....	465	9	166	15	410	16	292	300	64.5	5,240	11.3
1899.....	452	12	225	12	222	14	198	275	60.8	5,324	11.8
1900.....	448	9	236	11	224	7	165	242	54.0	4,565	10.2
1901.....	465	12	250	15	255	9	97	321	69.0	5,666	12.2
1902.....	470	9	214	17	290	11	252	285	60.6	5,921	12.6
1903.....	475	6	161	14	270	19	145	300	63.2	5,673	11.9
Average.....	435.4	12.9	255.9	12.4	229.7	14.7	190.1	332.7	76.4	5,453.7	12.5

^a Computed.

From a comparison of the two principal groups of employees presented in the foregoing table, it will be seen that in both the percentage of employees affected and in the number of days of illness these items for the employees in the works exceed by approximately 50 per cent the numbers reported for those in the mines. Lead colic, for instance, occurred among the employees in the smelting works only. Since the housing and other conditions of living are practically the same for the two groups, the conclusion is inevitable that the differences are caused by the nature of the work.

When compared with 1894, the condition of the employees with reference to sickness shows a general improvement during the later years and especially in the case of lead colic, the number of cases having decreased from 22 in 1894 to 6 in 1903 and the number of days of sickness in the same period from 500 to 161. These results are, of course, due to greater attention to sanitary conditions in the various departments. These consist in the use of water for sprinkling in cer-

tain departments, the wearing of gloves, respirators, and special working garments. The men are not fully impressed with the importance of wearing either gloves or respirators, however, and the exertion is so violent and the dust so penetrating in some rooms that the use of respirators is actually burdensome. The stained work garments of one shift were also to be seen hanging in contact with the street clothing of the men engaged in the succeeding shift. Further danger arises from failure to enforce the State regulation forbidding the eating of food in a dust-laden atmosphere. Other remedial devices are ventilating shafts, air and dust chambers, and mantles, hoods, etc., for the carrying off of the lead vapors and dust. Much room for improvement in these respects remains, however, as appears from analyses of the air in various departments, which was found to contain lead oxide in proportions varying from 0.3 or 0.4 milligram to 4.5 milligrams in 28 liters of air, while dust collected from window sills or other projections from the walls was found to contain from 14 per cent to 55.2 per cent of the same substance. Apart from the annual cleaning out of the dust chambers, air ways, and condensing apparatus, which requires from two to three weeks at the beginning of the year, one of the most dangerous occupations is that of sifting and sorting the various kinds of commercial litharge. In this work continuous employment would be impossible, and the employees are required to engage in it for only five or six days in succession, after which a period of eighteen or twenty months is allowed to intervene before the same persons are again assigned thereto.

The following table shows the number of deaths occurring among workmen, the number going on the invalid list, and the number of deaths among invalidated employees for each year from 1894 to 1903, inclusive, with average age:

NUMBER OF DEATHS AMONG EMPLOYEES, NUMBER TRANSFERRED TO INVALID LIST, AND NUMBER OF INVALIDED EMPLOYEES DYING AT THE LEAD MINES AND WORKS, PRIBRAM, BOHEMIA, WITH AVERAGE AGE, FOR EACH YEAR, 1894 TO 1903.

MINE EMPLOYEES.

Year.	Number of employees.	Employees dying.			Employees transferred to invalid list.		Separations from service by death and invalidity.		Invalided employees dying.	
		Number.	Average age.	Rate per thousand employees. (a)	Number.	Average age.	Number.	Per cent of employees. (a)	Number.	Average age.
1894.....	4,856	50	38.6	10.3	80	50.5	130	2.68	53	63.2
1895.....	4,681	31	46.6	6.6	80	50.2	111	2.37	58	59.2
1896.....	4,503	44	42.1	9.8	93	51.1	137	3.04	54	62.9
1897.....	4,306	41	41.4	9.5	81	51.9	122	2.83	45	60.7
1898.....	4,181	28	41.5	6.7	106	53.2	134	3.20	53	65.2
1899.....	4,057	32	39.3	7.9	107	50.6	139	3.43	67	64.4
1900.....	3,938	33	43.9	8.4	88	50.1	121	3.07	58	62.4
1901.....	3,610	33	44.9	9.1	86	50.2	119	3.30	58	61.1
1902.....	3,693	31	45.1	8.4	78	52.3	109	2.95	63	63.3
1903.....	3,593	36	45.0	10.0	62	49.5	98	2.73	67	60.1
Average.....	4,141.8	36.5	41.4	8.8	86.1	51.0	122.0	2.95	57.6	62.3

^a Computed.

^b This average is not derivable from the items given, but as given in the report.

NUMBER OF DEATHS AMONG EMPLOYEES, NUMBER TRANSFERRED TO INVALID LIST, AND NUMBER OF INVALIDED EMPLOYEES DYING AT THE LEAD MINES AND WORKS, PŘIBRAM, BOHEMIA, WITH AVERAGE AGE, FOR EACH YEAR, 1894 TO 1903—Concluded.

EMPLOYEES IN WORKS.

Year.	Number of employees.	Employees dying.			Employees transferred to invalid list.		Separations from service by death and invalidity.		Invalided employees dying.	
		Number.	Average age.	Rate per thousand employees. (a)	Number.	Average age.	Number.	Per cent of employees. (a)	Number.	Average age.
1894.....	357	3	41.0	8.4	18	49.0	21	5.88	8	57.2
1895.....	365	4	34.7	11.0	13	50.3	17	4.66	8	53.9
1896.....	395	3	40.8	7.6	8	51.0	11	2.78	4	55.4
1897.....	462	2	45.7	4.3	10	51.2	12	2.60	4	58.9
1898.....	465	3	44.3	6.5	4	43.8	7	1.51	.....	.....
1899.....	452	1	54.5	2.2	8	51.6	9	1.99	6	57.4
1900.....	448	1	62.7	2.2	9	53.2	10	2.23	5	65.0
1901.....	465	4	37.9	8.6	8	42.3	12	2.58	11	53.6
1902.....	470	4	37.1	8.5	11	49.4	15	3.19	7	56.6
1903.....	475	.....	.....	.....	8	44.5	8	1.68	7	59.9
Average.....	435.4	2.5	41.0	5.7	9.7	49.1	12.2	2.80	5.8	57.1

a Computed.

No very considerable improvement in conditions can be predicated on the death rates and the percentages of separation from service, tho some gain is apparent from a consideration of the latter data for employees in the lead works in recent years. The average age of mine employees dying or transferred to the invalid list is somewhat greater than that of the employees in the works, tho the percentage of total separations is lower for the latter than for the former group of employees.

Data for other establishments are given with less completeness than for that at Příbram. It may be noted that at the mine and works at Raibl, in Carinthia, 7 cases of lead poisoning were reported for the four years 1894 to 1897, while for the six succeeding years there were none. At Gailitz, also, none have been reported since 1899. Two of the cases at Raibl were among miners. It is stated as a reason for the infrequency of this complaint among the smelters at Raibl that they have an interval of twenty-four hours between shifts, much of which is spent at field work in the open air, thus allowing opportunity for the elimination of the poison from the system.

Some of the establishments had more effective ventilating systems than were in use at Příbram, as well as more elaborate sanitary regulations. At the works at Scheriau, in Lower Carinthia, for instance, the workrooms are sprinkled freely every day; eating and drinking in the workrooms, as well as the smoking and chewing of tobacco, are forbidden; mouth and hands must be carefully cleansed before eating or drinking; clothing must be changed before and after work, and the body thoroly cleansed at the close of a shift. Sponges moistened with vinegar are required to be worn while cleaning out the dust

chambers and shafts. Abstinence from acid foods and liquors is prescribed, and the use of fatty foods, and particularly of milk, is recommended.

The American type of furnaces is in use here, and so thoro is the ventilation that three analyses of the air in the immediate vicinity of the workmen attending to the roasting process showed a content of lead oxide of only 0.2 to 0.3 milligram in 250 liters of air. These regulations and devices were of too recent adoption for the results to be reported statistically, but at Gailitz, where much the same methods have been longer used, it is said that severe cases of lead poisoning have disappeared. An important factor in this improvement is believed to be the alternate days of agricultural labor, during which the body rids itself of the absorbed poison.

The following table gives statistics of sickness which occurred among the employees at the zinc works located at Cilli, Styria, for each year, 1898 to 1902. The principal product of this establishment is zinc, with considerable quantities of lead as one of the by-products. It is the second largest of the establishments investigated by the commission.

STATISTICS OF SICKNESS AMONG EMPLOYEES IN THE ZINC WORKS AT CILLI, STYRIA,
FOR EACH YEAR, 1898 TO 1902.

SMELTERS AND SMELTERS' HELPERS.

Year.	Number of employees.	Catarrh of the stomach.		Rheumatism.		All cases of sickness. ^(a)			
		Number of cases.	Days of sickness.	Number of cases.	Days of sickness.	Number of cases.	Per cent of employees. ^(b)	Days of sickness.	Average days of sickness per employee. ^(b)
1898.....	48	4	45	17	152	60	125.0	884	18.4
1899.....	54	2	80	15	226	48	88.9	816	15.1
1900.....	60	4	48	20	234	62	103.3	714	11.9
1901.....	60	1	8	32	511	77	128.3	1,077	18.0
1902.....	60	7	63	15	131	46	76.7	517	8.6
Average.....	56.4	3.6	48.8	19.8	250.8	58.6	103.9	801.6	14.2

ALL OTHER EMPLOYEES.

1898.....	145	5	39	21	232	103	71.0	1,615	11.1
1899.....	157	6	116	24	307	91	58.0	1,556	9.9
1900.....	172	11	160	43	511	131	76.2	2,140	12.4
1901.....	177	7	71	51	783	150	84.7	2,540	14.4
1902.....	172	2	15	39	413	95	55.2	1,177	6.8
Average.....	164.6	6.0	80.2	35.6	449.2	114.0	69.3	1,805.6	11.0

^a No cases of lead colic reported.

^b Computed.

The Miners' Provident Association in Miess-Schwarzenbach, Lower Carinthia, embracing the employees in the lead mines and smelting works of this locality, and the third largest of the establishments investigated by the commission, reported cases of sickness among

their members for each year, 1894 to 1903, as shown in the following table:

STATISTICS OF SICKNESS AMONG EMPLOYEES IN LEAD MINES AND SMELTING WORKS AT MIESS-SCHWARZENBACH, LOWER CARINTHIA, FOR EACH YEAR, 1894 TO 1902.

SMELTERS.

Year.	Average number of employees.	Lead colle.		Catarrh of the stomach.		Intestinal catarrh.		Habitual constipation.		All cases of sickness.			
		Number of cases.	Days of sickness.	Number of cases.	Days of sickness.	Number of cases.	Days of sickness.	Number of cases.	Days of sickness.	Number of cases.	Per cent of employees. (a)	Days of sickness.	Average days of sickness per employee. (a)
1894...	11	.....	.....	.....	.....	.....	.....	.....	.....	7	63.6	194	17.6
1895...	15	.....	.....	7	31	1	7	1	22	15	100.0	131	8.7
1896...	21	.....	.....	1	3	1	4	.....	.....	14	66.7	99	4.7
1897...	26	.....	.....	1	5	.....	.....	1	4	27	103.8	307	11.8
1898...	29	.....	.....	1	5	.....	.....	3	16	18	62.1	180	6.2
1899...	44	.....	.....	.....	.....	2	14	2	18	26	59.1	283	6.4
1900...	71	7	67	1	14	.....	.....	2	10	38	53.5	400	5.6
1901...	58	.....	.....	9	79	7	70	1	5	30	51.7	265	4.5
1902...	48	.....	.....	34	324	21	179	.....	.....	145	302.1	1,190	24.8
1903...	61	18	180	32	285	8	57	2	11	129	211.5	1,375	22.7
Av. (a)	38.4	2.5	24.7	8.6	76.6	4.0	33.1	1.2	8.6	44.9	116.7	442.4	11.3

ALL OTHER EMPLOYEES, INCLUDING MINE WORKERS.

1894...	297	.....	.....	21	277	2	40	.....	.....	184	62.0	2,689	9.1
1895...	321	.....	.....	20	228	10	121	4	25	174	54.2	2,103	6.6
1896...	384	.....	.....	25	326	6	85	7	62	268	69.8	3,236	8.4
1897...	469	.....	.....	15	162	8	73	6	63	272	58.0	4,350	9.3
1898...	505	.....	.....	24	357	8	92	6	82	351	69.5	5,297	10.5
1899...	503	.....	.....	37	503	25	376	10	91	506	100.6	7,564	15.0
1900...	566	3	53	19	296	11	83	.....	.....	460	81.3	7,000	12.4
1901...	704	.....	.....	60	545	6	50	1	7	496	70.5	6,956	9.9
1902...	845	.....	.....	60	483	18	185	1	4	719	85.1	8,005	10.2
1903...	866	1	7	65	439	16	139	3	16	766	88.5	8,867	10.2
Av. (a)	546.0	0.4	6.0	34.6	358.6	11.0	124.4	3.8	35.0	419.6	76.8	5,666.7	10.4

^a Computed.

FRANCE.

Annuaire des Syndicats Professionnels Industriels, Commerciaux et Agricoles Constitués Conformément à la Loi du 21 mars 1884, en France et aux Colonies. Direction du Travail, Ministère du Commerce, de l'Industrie, des Postes et des Télégraphes. 1903, lv, 764 pp.; 1904-5, lviii, 804 pp.

In these volumes are presented the fourteenth and fifteenth annual reports on trade, industrial, commercial, agricultural, and certain professional associations or unions formed in France and her colonies under the law of March 21, 1884.^a Local organizations (*syndicats*) and federations of such bodies (*unions des syndicats*), as well as labor exchanges (*bourses du travail*), are reported on. In the first group are included employers' associations; employees' unions; mixt unions,

^a For the provisions of this law see Bulletin No. 25. p. 838.

composed of both employers and employees, and those agricultural associations in which employers and employees are united to form a special type of mixt organization. Agricultural bodies made up exclusively of employers or employees are classed with other industrial organizations under the proper headings. Federations are similarly classified. A directory of these associations, federations, etc., by departments, takes up the main portion of the volumes under consideration. The laws under which these organizations operate are reproduced, together with the related orders, ministerial circulars, and instructions. Current judgments and court decisions on questions connected with the organizations, and lists of the unions, federations, etc., classified under the general trades or industries, are also given. In the report for 1903 is presented a list of the publications of the various bodies.

Summarized data concerning the different classes of organizations are also presented. The following table shows the number of local organizations conforming to the law of 1884 which were in existence on July 1 of each year from 1884 to 1896 and on January 1 of each year from 1898 to 1905, inclusive, and the increase in numbers from year to year:

INDUSTRIAL, COMMERCIAL, AND AGRICULTURAL ASSOCIATIONS IN EXISTENCE ON JULY 1 OF EACH YEAR, 1884 TO 1896, AND ON JANUARY 1 OF EACH YEAR, 1898 TO 1905.

[Under "Industrial, commercial, etc., associations" are included trade and professional associations and those agricultural associations which are composed of employers and employees separately.]

Date.	Industrial, commercial, etc., associations.			Agricultural associations (mixt).	Total.	Increase over preceding year.
	Em- ployers.	Em- ployees.	Mixt.			
July 1, 1884.....	101	68	1	5	175	.....
July 1, 1885.....	285	221	4	39	549	374
July 1, 1886.....	359	280	8	93	740	191
July 1, 1887.....	598	501	45	214	1,358	618
July 1, 1888.....	859	725	78	461	2,123	765
July 1, 1889.....	877	821	69	557	2,324	201
July 1, 1890.....	1,004	1,006	97	648	2,755	431
July 1, 1891.....	1,127	1,250	126	750	3,253	498
July 1, 1892.....	1,212	1,589	147	863	3,811	558
July 1, 1893.....	1,397	1,926	173	952	4,448	637
July 1, 1894.....	1,518	2,178	177	1,092	4,965	517
July 1, 1895.....	1,622	2,163	173	1,188	5,146	181
July 1, 1896.....	1,731	2,243	170	1,275	5,419	273
January 1, 1898.....	1,894	2,324	184	1,499	5,901	482
January 1, 1899.....	1,965	2,361	175	1,824	6,325	424
January 1, 1900.....	2,157	2,685	170	2,069	7,081	756
January 1, 1901.....	2,382	3,287	162	2,204	8,035	954
January 1, 1902.....	2,609	3,679	155	2,375	8,818	783
January 1, 1903.....	2,757	3,934	156	2,433	9,280	462
January 1, 1904.....	2,947	4,227	153	2,592	9,919	639
January 1, 1905.....	3,102	4,625	144	3,116	10,987	1,068

The increase in the total number of organizations has been constant, but far greater during the last five years than for any similar period since the enactment of the law. The number of employers' associations has had a steady growth, as have the organizations of employees, with the exception of one year. Since 1890 the number

of organizations of the latter class has exceeded that of the former. Mixt associations, except of persons engaged in agricultural pursuits, have shown a marked falling off since 1898, while the second and fourth groups shown in the table have practically doubled numbers within the same period.

The total membership of these organizations for each year, and the annual increase, are shown in the following table:

MEMBERSHIP OF INDUSTRIAL, COMMERCIAL, AND AGRICULTURAL ASSOCIATIONS ON JULY 1 OF EACH YEAR, 1890 TO 1896, AND ON JANUARY 1 OF EACH YEAR, 1898 TO 1905.

Date.	Membership of associations.					Increase over preceding year.
	Employers'.	Employees'.	Mixt.	Agricultural (mixt).	Total.	
July 1, 1890.....	93,411	139,692	14,066	234,234	481,433	.....
July 1, 1891.....	106,157	205,152	15,773	269,298	596,380	114
July 1, 1892.....	102,549	288,770	18,561	313,800	723,680	127
July 1, 1893.....	114,176	402,125	30,052	353,883	900,236	176
July 1, 1894.....	121,914	403,440	29,124	378,750	933,228	32
July 1, 1895.....	131,031	419,781	31,126	403,261	985,199	51
July 1, 1896.....	141,877	422,777	30,333	423,492	1,018,479	33
January 1, 1898.....	189,514	437,793	33,963	448,395	1,109,665	91
January 1, 1899.....	151,624	419,761	34,236	491,692	1,097,313	* 12
January 1, 1900.....	158,300	491,647	28,519	512,794	1,191,260	93
January 1, 1901.....	170,030	588,832	29,044	533,454	1,321,360	130
January 1, 1902.....	185,099	614,173	34,446	592,613	1,426,331	104
January 1, 1903.....	205,463	643,757	33,431	598,834	1,481,485	55
January 1, 1904.....	236,830	715,576	35,984	620,048	1,608,438	126
January 1, 1905.....	252,036	781,344	25,863	659,953	1,719,196	110

* Decrease.

The number of female members on January 1, 1905, was 92,722, whom 6,988 belonged to employers' associations, 69,405 to those of employees only, and 6,238 to mixt bodies. The number belonging to agricultural associations was 10,091.

In the following table are presented by groups of industries the number of employers' and employees' associations, the membership of each class, and the percentage which such membership forms of the total number of persons engaged in the industrial groups named. The comparisons are based on the returns of the latest industrial census.

The number of federations, of associations federated, and the total membership of such federations on January 1 of each year for the five-year period, 1901 to 1905, are shown in the following table:

FEDERATIONS OF INDUSTRIAL, COMMERCIAL, AND AGRICULTURAL ASSOCIATIONS
IN EXISTENCE ON JANUARY 1 OF EACH YEAR, 1901 TO 1905.

Items.	Industrial, commercial, etc., organizations.			Agricul- tural organiza- tions.	Total.	Increase over preceding year.
	Em- ployers'.	Em- ployees'.	Mixt.			
Federations:						
1901.....	60	95	9	38	302	29
1902.....	71	120	9	36	236	34
1903.....	78	138	14	43	273	37
1904.....	95	156	8	43	302	29
1905.....	97	158	10	47	312	10
Associations federated:						
1901.....	1,060	1,533	43	1,481	4,117	616
1902.....	1,286	2,010	50	1,720	5,066	949
1903.....	1,434	2,236	49	2,433	6,152	1,086
1904.....	1,687	2,519	34	2,617	6,857	705
1905.....	1,902	3,176	47	3,030	8,155	1,298
Membership of federations:						
1901.....	137,562	533,575	1,829	529,541	1,202,507	173,524
1902.....	134,594	672,422	1,841	539,566	1,348,423	145,916
1903.....	144,494	683,566	1,959	598,834	1,428,653	80,230
1904.....	170,862	590,223	2,753	685,868	1,449,706	21,053
1905.....	186,058	681,863	4,508	725,305	1,597,734	148,028

NUMBER AND MEMBERSHIP OF ORGANIZATIONS IN 1905, BY GROUPS OF INDUSTRIES
AND PER CENT OF MEMBERSHIP OF TOTAL NUMBER ENGAGED IN EACH GROUP.

Industries.	Employers' organizations.			Employees' organizations.		
	Num- ber.	Member- ship.	Per cent of mem- bership of total em- ployers.	Num- ber.	Member- ship.	Per cent of mem- bership of total em- ployees.
Agriculture, forestry, fisheries, and stock raising (a).....	166	27,431	1.14	374	45,014	1.32
Mining.....	5	176	48.48	71	79,277	50.95
Quarrying.....	6	146	2.39	47	7,889	14.18
Food products (manufacture and sale).....	1,042	103,495	23.66	273	40,720	6.77
Chemical products.....	55	4,047	40.21	109	28,175	25.54
Paper, printing and publishing.....	75	4,327	43.42	296	23,857	19.76
Hides and leather.....	81	3,934	8.99	243	27,259	16.12
Textiles proper.....	98	4,671	8.89	379	79,676	12.50
Clothing, cleaning, etc.....	98	5,968	3.85	224	21,572	4.93
Woodworking.....	91	3,319	4.66	324	24,620	10.91
Metal working.....	180	9,484	12.89	558	90,358	15.53
Stone, earthen ware, glass, etc.....	37	1,980	16.92	155	14,302	9.81
Building trades.....	255	18,753	13.85	713	52,480	10.06
Commerce, transportation, and handling.....	465	30,821	22.95	689	221,683	14.33
Domestic and personal service.....	57	5,161	36.63	81	11,042	1.34
Professional (medicine, pharmacy, etc.).....	391	28,323	78.60	89	13,420	8.14
Total.....	3,102	252,036		4,625	781,344	

* Including only those agricultural organizations which are composed of employers only or of employ-
ees only.

There were 114 labor exchanges on January 1, 1905, with 2,360 subsidiary organizations, representing a membership of 377,561. Municipal and departmental subsidies were granted during the year to the amount of 309,130 francs (\$59,662). The labor exchanges were successful in securing employment in 91,988 instances.

Auxiliary institutions and undertakings of various kinds were main-
tained by the different organizations, local and federated, amounting

in all to 6,458 on January 1, 1905. Among these were 1,366 employment offices, 1,412 trade or professional libraries, 929 mutual-relief funds, 718 funds for aiding unemployed members, 695 travel funds, 512 trade schools and courses, besides other forms of relief and insurance funds, cooperative societies; experimental laboratories, museums, etc., and 415 publications issued annually or oftener.

Rapports sur l'Application des Lois Réglementant le Travail en 1904.

Direction du Travail, Ministère du Commerce, de l'Industrie, des Postes et des Télégraphes. 1905. cci, 458 pp.

In this volume are found the summary reports of the members of the superior commission of labor and of the minister of commerce, industry, posts and telegraphs, and the more detailed reports of the division inspectors of labor on the subject of the enforcement of certain laws of France affecting industrial conditions. These laws are three in number and are referred to by the dates of their passage. The law of September 9, 1848, relates to the hours of labor of male adults only; that of June 12, 1893, amended by a law of July 11, 1903, is a general factory-inspection law, and contains provisions for lighting, ventilation, and safety of employees in publicly-owned workshops as well as in those under private control. The act of March 30, 1900, which is in reality an amendment or revision of the law of November 2, 1892, has for its subject-matter the regulation of the employment of women and children in industrial establishments. This last law also controls the hours of labor of adult males at work in establishments where women and children are employed.

The total number of establishments coming within the purview of one or more of these laws in 1904 was 508,849, of which 251,417 employed adult males only, and 257,432 employed either females only or a mixt working force. In 413,269, or 81.2 per cent of the total number of establishments, there were from 1 to 5 employees; 70,222 had from 6 to 20 employees; 20,773 from 21 to 100; 4,136 from 101 to 500; and only 449 had more than 500 employees. Less than 1 per cent, or more exactly, nine-tenths of 1 per cent, of the total number of establishments had more than 100 employees.

The total number of employees in all the establishments considered was 3,662,167, of whom 301,066 were males under 18 years of age, 266,339 females under 18 years of age, 2,293,725 males 18 years of age or over, and 801,037 females 18 years of age or over.

The law of July 11, 1903, so increased the scope of the inspectors' duties by including for the first time a large number of establishments not covered by the former law that the work of inspection was quite incomplete, the total number of visits of inspection being 167,224. Altho the smallest establishments having employees are subject to inspection, home industries are not, when conducted by the father, mother, or guardian, and employing only members of the

family, except where mechanical motors are used or the industry is classed as dangerous or unhealthful. There is found to be a growing abuse of the custom of breaking up the centralized establishment and distributing for home manufacture such materials as are capable of manipulation in this way. The cost of maintaining a shop is avoided, as well as liability to inspection. The solidarity of coemployees, which in factories forms something of a defense against excessively low wages, is also prevented. At the homes excessively long hours are worked in the effort to accomplish without sufficient equipment the required task and so secure further employment, which the contractor can at any time withhold without feeling the loss that would result from an unused plant if he were operating a factory. In one case a central force of 6 or 7 employees was sufficient to give out work in the manufacture of clothing to about 1,500 outside employees.

The employment of children under 13 years of age is prohibited, except that children who have attained the age of 12 years and have a proper medical certificate may be employed, on showing that they have completed a prescribed course of study. The reported violations of this law for the years 1902, 1903, and 1904 were 621, 639, and 511, respectively. More than one-fourth of these were in the brick and tile industry, the next greatest offenders being benevolent institutions of various kinds.

A gradual reduction of the hours of labor from 11 to 10½ and then to 10 per day in establishments employing women and children in whole or in part has been effected under the provisions of the law of March 30, 1900, reaching its goal in the year 1903. The reduction of the hours of labor from 10½ to 10 per day caused less friction than had followed the cutting off of the first half hour, and the ten-hour day is now reported as having been generally accepted. Its adoption is not required where only male adults (18 years of age or over) are employed, however, and some employers have discharged their female and minor employees rather than accept the shortening of the working period. Another practical result mentioned was the extension of the night shift, on which only adult males are employed, so that the total of the hours of operation of the machines is not affected. The violations of the law regulating the hours of labor of women and children numbered 5,357 in 1904, as against 6,121 in 1903. Men were employed for a time in excess of the statutory limit in 2,670 cases in 1904, an increase over the previous year, in which 2,273 cases were reported. Women and children were most frequently worked overtime in the garment-making industries, 1,382 violations being reported. The next highest number was in laundry work, where there were 527 instances.

Night work—i. e., between the hours of 9 p. m. and 5 a. m.—is forbidden, with provisional exceptions, in the cases of females and of minors under 18. The violations of the law have steadily decreased

from 1,534 in 1900 to 813 in 1904. Here, as above, the chief offenders are employers engaged in the clothing industry, 43.4 per cent of all violations having occurred in such employment. This industry also gives rise to the most frequent violations of the law prescribing a weekly day of rest for women and young persons. Adult males are not protected against a demand for continuous labor, tho they are generally allowed one day of rest in seven. Cases are reported where only half the day is allowed, and others where, on account of the law forbidding employment of a mixt force for more than ten hours daily, the adult males are kept at work on Sunday to make up for the time lost during the week.

Accidents to employees are required to be reported to the mayors of the communes, who in turn report to the inspectors. Three classes of accidents are recognized—i. e., those resulting in death, those producing permanent disability, and those producing temporary disability continuing for more than four days. Those producing incapacity for shorter periods are not reported.

The following table shows the number and rate per thousand of accidents occurring in each industrial group, according to their gravity. Mines and quarries are not included therein, since under the French law accidents in these places are not reported to the labor inspectors.

NUMBER OF ACCIDENTS OCCURRING AND RATE PER THOUSAND EMPLOYEES, IN GROUPS OF INDUSTRIES, ACCORDING TO RESULTS, 1904.

Industry.	Acci- dents per 1,000 em- ploy- ees.	Deaths.		Disabilities.				Results unknown.	
				Perma- nent.		Temporary (exceeding four days).			
		Num- ber.	Rate per 1,000.	Num- ber.	Rate per 1,000.	Num- ber.	Rate per 1,000.	Num- ber.	Rate per 1,000.
Fisheries (establishments having an industrial character).....	(a)					92	(a)		
Agriculture and forestry (establishments having an industrial character).....	(a)	88	(a)	162	(a)	2,574	(a)	108	(a)
Extractive industries (other than mining) (b).....	(a)	2	(a)	3	(a)	327	(a)	14	(a)
Food products.....	42.9	100	0.3	209	0.7	12,809	41.1	256	0.8
Chemical industries.....	96.8	52	.5	122	1.1	10,120	93.7	172	1.6
Caoutchouc, paper, and pasteboard.....	50.6	13	.2	116	1.6	3,430	48.1	49	.7
Printing and publishing.....	25.7	5	.1	53	.7	1,975	24.7	21	.3
Textiles.....	22.7	33	.1	414	.7	13,921	21.8	113	.2
Clothing.....	4.6	7	(c)	22	.1	1,659	4.5	33	.1
Straw, feather and hair goods.....	9.7			4	.2	161	9.0	5	.3
Hides and leather.....	24.7	7	.1	83	.7	2,954	23.6	58	.5
Wood working.....	54.4	81	.3	616	2.2	14,564	50.9	279	1.0
Metallurgy.....	213.1	55	.7	100	1.2	17,174	209.6	137	1.7
Metal working, base.....	97.9	92	.2	788	1.7	44,215	94.8	593	1.3
Metal working, precious.....	16.3	1	.1	8	.4	292	15.3	9	.5
Lapidary work.....	18.4					32	17.2	2	1.1
Stone cutting and polishing.....	50.6	2	.1	18	.9	958	48.5	23	1.1
Earth work and masonry.....	108.9	307	1.2	638	2.4	27,466	103.0	619	2.3
Earthen and stone ware.....	55.9	34	.2	136	.9	8,256	53.9	138	.9
Transportation.....	(a)	374	(a)	513	(a)	32,788	(a)	655	(a)
Commerce and banking.....	35.9	103	.3	196	.5	14,702	34.6	253	.7
Liberal professions.....	(a)	2	(a)	5	(a)	75	(a)	2	(a)
Personal and domestic service.....	(a)	4	(a)	1	(a)	127	(a)	0	(a)
Public service.....	(a)	15	(a)	36	(a)	2,216	(a)	59	(a)

(a) Not reported.

(b) Including employees of mining companies employed in offices for sale and shipment of coal and mineral oils, etc., only.

(c) Less than five one-hundredths of one per thousand.

The following table shows the number and rate per thousand of accidents reported in the various groups of industries, by sex and age groups:

NUMBER OF ACCIDENTS OCCURRING AND RATE PER THOUSAND EMPLOYEES, IN GROUPS OF INDUSTRIES, BY AGE AND SEX, 1904.

Industry.	Under 18 years of age.						Eighteen years of age or over.					
	Males.			Females.			Males.			Females.		
	Acci- dents	Em- ploy- ees.	Rate per 1,000.	Acci- dents	Em- ploy- ees.	Rate per 1,000.	Acci- dents	Em- ploy- ees.	Rate per 1,000.	Acci- dents	Em- ploy- ees.	Rate per 1,000.
Fisheries (a).....	9	(b)	(b)				79	(b)	(b)	4	(b)	(b)
Agriculture (a).....	163	(b)	(b)	20	(b)	(b)	2,677	(b)	(b)	72	(b)	(b)
Extractive industries (other than min- ing) (c).....	5	(b)	(b)	4	(b)	(b)	334	(b)	(b)	3	(b)	(b)
Food products.....	637	21,484	30	149	10,710	14	11,779	224,213	53	809	55,285	15
Chemical industries.....	222	3,655	61	63	2,260	28	9,631	80,789	119	550	21,386	26
Caoutchouc, paper, and pasteboard.....	372	4,943	75	106	7,148	15	2,800	36,014	78	330	23,230	14
Printing and publish- ing.....	561	12,943	43	48	14,701	3	1,309	47,018	28	136	15,000	9
Textiles.....	1,752	44,776	39	1,053	254,162	4	9,129	256,814	36	2,547	254,778	10
Clothing.....	104	7,471	14	127	202,962	1	1,122	48,551	23	368	209,717	2
Straw, feather, and hair goods.....	15	922	16	23	7,764	3	75	5,662	13	57	8,344	7
Hides and leather.....	293	12,334	24	72	22,820	3	2,456	82,722	30	281	23,715	12
Wood working.....	988	30,770	32	87	19,507	4	14,225	227,659	62	240	21,327	11
Metallurgy.....	1,761	7,301	241	5	532	9	15,676	73,978	212	24	599	40
Metal working, base.....	5,793	57,920	100	287	25,788	11	38,835	374,509	103	773	26,077	30
Metal working, pre- cious.....	76	2,479	31	14	4,066	3	200	10,801	19	20	4,244	5
Lapidary work.....	2	163	12	9	497	18	13	1,019	13	10	497	20
Stone cutting and pol- ishing.....	18	1,400	13	1,088			981	17,101	57	2	1,096	2
Earth work and ma- sonry.....	925	16,449	56	3	472	6	28,072	249,520	113	30	484	62
Earthen and stone ware.....	1,187	21,749	55	170	16,712	10	6,929	109,145	63	278	16,724	17
Commerce and bank- ing.....	604	37,057	16	27	23,126	1	14,247	281,695	51	406	89,383	5
Liberal professions.....	9	(b)	(b)				73	(b)	(b)	2	(b)	(b)
Personal and domes- tic service.....	5	(b)	(b)	5	(b)	(b)	108	(b)	(b)	23	(b)	(b)
Public service.....	27	(b)	(b)				2,123	(b)	(b)	156	(b)	(b)

a Establishments having an industrial character.

b Not reported.

c Including employees of mining companies employed in offices for sale and shipment of product, legal and financial offices, etc., only.

In the table presented below are given the total number of employ-ees, by sex and age groups, and the distribution of accidents among these groups according to results, during the year 1904:

TOTAL NUMBER OF EMPLOYEES IN INDUSTRIES REPORTING, BY SEX AND AGE GROUPS, AND DISTRIBUTION OF ACCIDENTS BY RESULTS, 1904.

Items.	Under 18 years of age.		Eighteen years of age or over.		Total.
	Males.	Females.	Males.	Females.	
Number of employees.....	301,066	266,339	2,293,725	801,037	3,662,167
Per cent (a).....	8.22	7.27	62.63	21.88	100.00
Number of deaths.....	64	3	1,292	18	1,377
Per cent (a).....	4.65	.22	93.82	1.31	100.00
Number of permanent disabilities.....	330	83	3,654	176	4,243
Per cent (a).....	7.78	1.95	86.12	4.15	100.00
Number of temporary disabilities (above 4 days).....	15,096	2,156	188,730	6,885	212,887
Per cent (a).....	7.09	1.01	88.66	3.24	100.00
Results unknown.....	196	33	3,252	136	3,617
Per cent (a).....	5.42	.91	89.91	3.76	100.00
Total accidents.....	15,686	2,275	196,948	7,215	222,124
Per cent (a).....	7.06	1.02	88.67	3.25	100.00

a Computed.

From the above table it appears that the proportion of females affected by accidents is far below the proportion of females employed, while for each class of accidents the proportion of adult males injured is much in excess of the proportion employed. In no other case does the percentage of accidents approximate the percentage of employees in the group, except in the classes of disabilities affecting male employees under 18 years of age.

From the report to the mine office, it appears that of the 329,830 persons employed in and about mines and quarries, 31,161 were affected by accidents. The results were: Deaths, 369; permanent disability in 387 cases; temporary disability (exceeding four days) in 29,995 cases, while results were unknown in 410 instances.

GREAT BRITAIN.

Fifteenth Report on Trade Unions in Great Britain and Ireland, 1902, 1903, and 1904. lxxx, 196 pp. (Published by the Labor Department of the British Board of Trade.)

This report presents information relative to the membership, by sex, of all trade unions in the United Kingdom, to membership, classified income and expenditure, and financial condition of 100 principal trade unions, to federations of trade unions, and to trade councils, and is a continuation of the series of reports begun in 1886. Comparative summary tables are given for the ten-year period, 1895 to 1904.

At the end of 1904 there were reported 1,148 trade unions, with a total membership of 1,866,755. The number of trade unions reported at the end of 1901 was 1,239, with a membership of 1,940,874, showing for the three-year period a decrease of 91 in the number of trade unions and of 74,119 in membership. During the period covered by this report 93 unions were formed, 130 were dissolved, and 54 were absorbed or amalgamated with other unions. Of the 1,074 unions which were in existence at the end of 1901 and which remained in existence at the end of 1904, 632 showed a decrease in membership, 393 showed an increase, and 49 reported the same membership. As compared with 1901, with the exception of the textile group of industries, all the main industries show a falling off in membership, being in the metal, engineering, and shipbuilding trades a loss of 0.8 per cent, in mining and quarrying a loss of 5.5 per cent, in transportation a loss of 7 per cent, in the building trades a loss of 9.6 per cent, and in the clothing trades a loss of 11 per cent. Of the minor unions, combined under the head of "other unions," the printing and allied trades had an increase of 7.1 per cent, the unions of employees of public authorities an increase of 23.6 per cent, the shop assistants' unions an increase of 60 per cent, while the general laborers' unions sustained a loss of 15 per cent.

The woodworking, chemical, glass, pottery, leather, food, tobacco, and other miscellaneous trades also sustained losses in union membership.

As compared with 1901, there were increases both in the number of unions including women and girls as members and in the number of such members. At the end of 1901 there were 144 unions with 120,078 female members, and at the end of 1904 there were 148 unions with 125,094 female members. Nearly 90 per cent of the female members were employed in the textile trades, 77.4 per cent being found in the cotton industry alone.

The following tables show the number and membership of trade unions, by groups of industries, for the ten-year period, 1895 to 1904:

NUMBER OF TRADE UNIONS, BY GROUPS OF INDUSTRIES, 1895 TO 1904.

[In this tabulation only those trade unions are considered which furnished returns for all of the ten years included in this period.]

Year.	Build- ing.	Mining and quarry- ing.	Metal, engi- neer- ing, and ship- build- ing.	Textile.	Cloth- ing.	Trans- porta- tion (land and sea).	Print- ing, paper, etc.	Wood- work- ing and furn- ish- ing.	Miscel- lane- ous.	Total.
1895.....	127	92	278	253	46	65	48	105	275	1,289
1896.....	135	90	284	255	50	61	50	105	272	1,302
1897.....	142	78	279	262	47	63	49	104	270	1,294
1898.....	136	72	274	257	45	62	47	104	267	1,264
1899.....	136	70	272	254	44	66	48	106	262	1,258
1900.....	130	68	274	250	46	63	46	103	265	1,245
1901.....	127	67	267	252	46	65	44	107	264	1,239
1902.....	120	68	258	253	41	62	43	100	259	1,204
1903.....	117	70	246	250	40	57	42	101	261	1,184
1904.....	109	69	237	248	36	57	41	99	252	1,148

MEMBERSHIP OF TRADE UNIONS, BY GROUPS OF INDUSTRIES, 1895 TO 1904.

[In this tabulation only those trade unions are considered which furnished returns for all of the ten years included in this period.]

Year.	Build- ing.	Mining and quarry- ing.	Metal, engi- neer- ing, and ship- building.	Textile.	Cloth- ing.	Trans- porta- tion (land and sea).	Print- ing, paper, etc.	Wood- working and furn- ish- ing.	Miscel- laneous.	Total.
1895.....	180,519	288,726	269,923	220,396	78,059	119,855	49,191	32,169	177,008	1,415,846
1896.....	193,643	291,015	305,412	219,271	76,457	134,050	51,219	37,012	195,660	1,503,739
1897.....	215,632	293,805	322,094	220,103	75,316	182,586	53,020	38,998	222,481	1,624,035
1898.....	232,778	366,561	312,311	215,793	70,640	146,550	54,436	37,942	224,349	1,661,360
1899.....	250,654	445,527	335,622	221,187	66,785	161,709	56,727	39,877	243,578	1,821,666
1900.....	253,962	523,541	342,198	221,415	67,174	169,254	57,228	39,943	254,179	1,928,894
1901.....	249,507	530,683	338,632	220,073	65,776	165,893	58,274	40,745	271,291	1,940,874
1902.....	245,649	531,879	337,046	223,050	64,101	154,834	59,062	41,611	269,385	1,926,617
1903.....	238,445	528,775	337,076	220,525	61,726	154,095	60,138	41,476	262,304	1,904,560
1904.....	225,481	501,248	335,908	221,694	58,525	154,206	62,428	39,571	267,694	1,866,755

The mining and quarrying group of trade unions has held first place continuously since 1898 as regards number of members, and shows for the period a greater gain, both relative and actual, than any other group. The groups ranked in order of membership at the end of 1904 as follows: Mining and quarrying; metal, engineering,

and shipbuilding; building; textiles; transportation; printing, paper, etc.; clothing; and woodworking and furnishing.

At the end of 1904, as in previous years, the great bulk of trade-union membership was found embraced in a comparatively small number of unions, and 68.8 per cent of the membership of all unions was included in four groups of industries (building trades; mining and quarrying; metal, engineering, and shipbuilding; and textiles). Included in the 100 principal unions, at the end of 1904, were 1,127,529 members, or 60.4 per cent of the total membership of all unions.

The financial operations and benefit features of trade unions are shown for 100 principal organizations only. The following table shows the financial operations for the ten years, 1895 to 1904:

FINANCIAL OPERATIONS OF 100 PRINCIPAL TRADE UNIONS, 1895 TO 1904.

Year.	Members at end of year.	Income.		Expenditures.		Funds at end of year.	
		Amount.	Per member.	Amount.	Per member.	Amount.	Per member.
1895	907,496	\$7,501,719	\$8.27	\$6,702,884	\$7.39	\$8,330,149	\$9.18
1896	987,010	8,049,824	8.41	5,919,567	6.18	10,460,405	10.93
1897	1,056,617	9,606,189	9.09	9,262,113	8.76	10,804,482	10.22
1898	1,031,297	9,251,757	8.97	7,227,862	7.01	12,828,376	12.44
1899	1,107,724	8,896,200	8.03	6,108,421	5.52	15,616,156	14.10
1900	1,149,937	9,426,610	8.20	7,066,625	6.14	17,976,140	15.63
1901	1,155,133	9,884,226	8.56	7,940,245	6.87	19,920,122	17.25
1902	1,152,834	10,110,835	8.77	8,715,780	7.56	21,315,178	18.49
1903	1,139,559	10,154,093	8.91	9,273,529	8.14	22,195,742	19.47
1904	1,127,529	10,207,338	9.05	9,938,196	8.82	22,464,883	19.92

Comparing the figures for 1902, 1903, and 1904 with those for 1901 it is seen there has been a decrease in membership, while the income, expenditures, and funds on hand at the end of the year, both in amount and per member, have increased. When each of three later years is compared with the year next preceding, a loss in membership appears, while all the other items reported show an increase from year to year. Of every £1 (\$4.87) spent by the 100 unions in 1904, 6s. 4d. (\$1.54) was for unemployed benefit, 1s. 3d. (\$0.31) on account of disputes, 8s. 4d. (\$2.03) for sick, accident, superannuation, funeral, and other benefits, and 4s. 1d. (\$0.99) for working and miscellaneous expenses. Unemployed benefits were paid by 81 of the 100 unions, 75 paid either sick or accident benefits, 40 paid superannuation benefits, 87 paid funeral benefits, and 36 paid all four classes of benefits.

When necessary all trade unions pay dispute benefits, and in 1904, out of the 100 unions, 80 are reported as having paid such benefits.

The following tables show the total expenditures and the expenditures per member for the various classes of benefits for each of the years 1895 to 1904:

EXPENDITURES OF 100 PRINCIPAL TRADE UNIONS ON VARIOUS BENEFITS, ETC.,
1895 TO 1904.

Year.	Unem- ployed, etc., benefits.	Dispute benefits.	Sick and accident benefits.	Superan- nuation benefits.	Funeral benefits.	Other ben- efits and grants to mem- bers. (a)	Working and other expenses.	Total.
1895.....	\$2,028,280	\$959,849	\$1,254,151	\$628,951	\$361,114	\$236,351	\$1,234,188	\$6,702,884
1896.....	1,275,719	820,662	1,167,118	680,254	356,977	294,360	1,324,477	5,919,567
1897.....	1,603,838	3,207,228	1,260,716	726,997	378,156	556,518	1,528,660	9,262,113
1898.....	1,161,750	1,599,205	1,306,991	782,674	396,167	495,804	1,485,271	7,227,862
1899.....	915,208	581,420	1,408,998	855,078	439,956	333,774	1,573,987	6,108,421
1900.....	1,281,014	725,381	1,503,262	907,748	465,651	340,584	1,742,985	7,066,025
1901.....	1,595,166	995,394	1,583,768	971,319	466,225	482,217	1,846,156	7,940,245
1902.....	2,063,620	1,060,780	1,657,072	1,066,231	463,758	475,949	1,928,370	8,715,780
1903.....	2,480,324	839,067	1,762,987	1,166,665	450,156	476,659	2,097,671	9,273,529
1904.....	3,152,139	615,349	1,871,262	1,301,283	465,452	502,388	2,030,323	9,938,196

a Includes grants to members, grants from one union to another, payments to federations, trade councils, congresses, etc.

EXPENDITURES PER MEMBER OF 100 PRINCIPAL TRADE UNIONS ON VARIOUS BEN-
EFITS, ETC., 1895 TO 1904.

Year.	Unem- ployed, etc., benefits.	Dispute benefits.	Sick and accident benefits.	Superan- nuation benefits.	Funeral benefits.	Other ben- efits and grants to mem- bers. (a)	Working and other expenses.	Total.
1895.....	\$2.24	\$1.06	\$1.38	\$0.69	\$0.40	\$0.26	\$1.36	\$7.39
1896.....	1.33	.86	1.22	.71	.37	.31	1.38	6.18
1897.....	1.51	3.04	1.19	.69	.36	.53	1.44	8.76
1898.....	1.13	1.55	1.27	.76	.38	.48	1.44	7.01
1899.....	.83	.53	1.27	.77	.40	.30	1.42	5.52
1900.....	1.11	.63	1.31	.79	.40	.38	1.52	6.14
1901.....	1.38	.86	1.37	.84	.40	.42	1.60	6.87
1902.....	1.79	.92	1.44	.92	.40	.41	1.68	7.56
1903.....	2.17	.74	1.55	1.02	.40	.42	1.84	8.14
1904.....	2.80	.55	1.66	1.15	.41	.45	1.80	8.82

a Includes grants to members, grants from one union to another, payments to federations, trade councils, congresses, etc.

A review of the items of expenditure during the ten-year period shows a general increase in the expenditure per member for sick and accident and superannuation benefits, and for working and other expenses; unemployed and dispute benefits vary greatly from year to year, while funeral and other benefits and grants vary slightly. The large expenditure per member on dispute benefits in 1897 and 1898 was due to a great dispute in the engineering trade.

Other forms of labor organizations considered in this report are trade councils and federations of trade unions. The distribution of federations of trade unions according to groups of industries, and the aggregate membership of unions represented in the trade councils, for the years 1900 to 1904, are shown in the table following:

FEDERATIONS OF TRADE UNIONS AND TRADE COUNCILS, 1900 TO 1904.

[Many unions are affiliated to more than one federation, involving some duplications of membership figures.]

Groups of industries.	1900.		1901.		1902.		1903.		1904.	
	Num-ber.	Mem-bers.	Num-ber.	Mem-bers.	Num-ber.	Mem-bers.	Num-ber.	Mem-bers.	Num-ber.	Mem-bers.
General federation of trade unions....	1	386,696	1	420,606	1	414,446	1	403,301	1	396,226
Federations of trade unions:										
Building trades.....	32	97,694	31	100,654	28	100,609	29	106,122	27	121,266
Mining.....	10	576,936	10	561,430	10	561,316	10	557,640	10	546,460
Metal, engineer- ing, and ship- building.....	14	261,553	14	264,843	14	276,900	12	269,569	12	374,634
Textiles.....	16	281,184	17	297,137	18	291,851	17	248,801	17	249,026
Transportation (land and sea)	5	30,581	5	35,181	3	23,368	3	26,237	3	23,187
Printing, and allied trades..	10	56,982	10	60,524	2	50,370	2	48,988	2	55,130
Woodworking and furnishing	8	9,433	8	11,943	8	14,262	7	13,736	8	14,475
Enginemn.....	4	15,182	4	15,283	3	18,302	3	16,935	3	6,607
Other trades...	8	52,201	9	59,121	9	56,847	8	56,839	10	64,967
Total.....	108	1,768,442	109	1,835,722	96	1,808,451	92	1,742,168	93	1,851,378
Trade councils.....	184	761,403	189	796,093	194	815,716	210	850,978	228	874,939

The general federation of trade unions, with its 396,226 members in 1904, was composed of 91 constituent unions. The membership has fallen off since 1901, when it was 420,606; but it was greater at the end of 1904 than it was in 1900. Of the 91 constituent unions, 64 were full-benefit unions; that is, paying for each member 6d. (\$.12) per quarter, and receiving 5s. (\$1.22) per week per member involved in disputes approved by the federation, while 27 unions were paying half contributions and receiving half benefits.

In 1900 the number of federations was 108, while in 1904 the number was 93, a decrease of 15. The aggregate membership, however, shows an increase of 82,936 for the period 1900 to 1904. The largest number of federations in any industry was found, thruout the entire period, in the building trades. The greatest number of members, however, was in the mining industry.

The number and aggregate membership of trade councils show an increase from year to year, with a total increase of 44 in the number of councils and of 113,466 in membership, during the period.

The report contains a list of the trade-union congresses which have been held in the United Kingdom since 1866, with number of delegates present, number of organizations and of members of organizations represented, and income of each congress.

DECISIONS OF COURTS AFFECTING LABOR.

[Except in cases of special interest, the decisions here presented are restricted to those rendered by the Federal courts and the higher courts of the States and Territories. Only material portions of such decisions are reproduced, introductory and explanatory matter being given in the words of the editor. Decisions under statutory law are indexed under the proper headings in the cumulative index, page 919 et seq.]

DECISIONS UNDER STATUTORY LAW.

CONTRACT OF EMPLOYMENT—ADVANCE PAYMENTS—FRAUDULENT BREACH—CONSTITUTIONALITY OF STATUTE—*State v. Murray, Supreme Court of Louisiana, 40 Southern Reporter, page 930.*—Butler Murray was charged with a violation of a labor contract under the statute, act No. 50, Acts of 1892. This act provides for fine or imprisonment in cases where a laborer receives advances and fails or refuses to perform the labor for which he contracted or to repay the money or the value of the goods advanced. Murray's defense was that the act was unconstitutional as enforcing involuntary servitude and was in violation of the so-called peonage laws, sections 1990 and 5526, United States Rev. St. (U. S. Comp. St., 1901, pp. 1266, 3715). This view was taken by the court of the fifth judicial district, Parish of Jackson, and the indictment was quashed. The State then appealed to the supreme court, where the statute was declared constitutional and a trial ordered. The ruling is stated in the following syllabus, which was prepared by the court:

No one has the right to money obtained in bad faith and through willful and wanton methods. The act of one who imposes upon another, and obtains an amount on representation that he will stay and work, and immediately thereafter leaves, falls within the terms of act No. 50, page 71, of 1892.

He can not be heard to complain of involuntary servitude, for the indictment, the averment of which he does not controvert, shows that he had not performed any work at all.

EMPLOYER AND EMPLOYEE—RELATION—EMPLOYEE RIDING TO PLACE OF WORK—SUNDAY LABOR AS AFFECTING CONTRACT—*Shannon v. Union Railroad Company, Supreme Court of Rhode Island, 63 Atlantic Reporter, page 488.*—In this case Cormack Shannon was refused judgment for damages for injuries received while in the service of the

Union Railroad Company and appealed. The judgment of the court below was affirmed for reasons that appear in the opinion of the court as delivered by Judge Blodgett. The opinion also states the facts in the case, and is as follows:

1. The record shows that on Sunday, the 29th of June, 1902, the plaintiff, who was an employee of the defendant, had been engaged in cleaning a switch on the road of the defendant, and then boarded a car to proceed to another switch on the road to perform a similar task. He gave to the conductor an employee's ticket which had been furnished by the defendant company, and before reaching his destination was injured by a collision between the car on which he was riding and another car of the defendant company. At the trial the plaintiff was nonsuited, on the ground that the negligence of which he complained was that of a fellow-servant, and to this ruling he duly excepted and preferred his petition for a new trial in this court. The ruling of which he complains was a correct ruling. He was traveling to perform his customary work at the time of the accident, and clearly sustained the relation of an employee rather than that of a passenger at the time (*Ionnone v. N. Y., N. H. & H. R. Co.*, 21 R. I. 452, 44 Atl. 592, 40 L. R. A. 730, 19 Am. St. Rep. 812, and cases cited.)

2. The plaintiff, however, contends that the act of the defendant in running its cars on Sunday was an illegal act, because in violation of the Sunday law of the State, viz (Gen. Laws 1896, c. 281, sec. 17): "Every person who shall do or exercise any labor or business or work of his ordinary calling, or use any game, sport, play, or recreation on the first day of the week, or suffer the same to be done or used by his children, servants, or apprentices, works of necessity and charity only excepted, shall be fined not exceeding five dollars for the first offense and ten dollars for the second and every subsequent offense." He further contends that there could be no valid contract on his part to perform work and labor of his ordinary calling on Sunday, and, consequently, that the relation of master and servant, as aforesaid, could not exist for the purposes of this case on that day. The argument does not convince us. If the operation of the cars on Sunday was lawful, as being a work of necessity within the meaning of the statute, clearly he is not entitled to recover for the negligence of a fellow-servant. But even if the cars were being operated contrary to law at that time, the plaintiff was admittedly traveling, on the very car so operated, for the like illegal purpose of performing work and labor of his ordinary calling on that day and for the express purpose of promoting and assisting in the like illegal running of other cars of the defendant on the same day and in the same manner. To concede the plaintiff's contention would result in this absurdity, viz, that he might have an action on the state of facts here shown to have existed on Sunday, although he could have had no action if the same facts had existed on any one of the six remaining days of the week; and it never has been held that the purpose of the Sunday laws was to give an action which otherwise could not be maintained. If the act of the defendant was illegal, the act of the plaintiff was equally so; and the law leaves him where it finds him, in accordance with the ancient maxim, "In pari delicto potior est conditio defendentis."

Plaintiff's petition for a new trial denied, and case remitted to the superior court, with direction to enter judgment for the defendant.

EMPLOYERS' LIABILITY—EMPLOYMENT OF CHILDREN IN VIOLATION OF STATUTE FIXING AGE LIMIT—NEGLIGENCE—*Rolin v. R. J. Reynolds Tobacco Company*, Supreme Court of North Carolina, 53 *South-eastern Reporter*, page 891.—Willis Rolin sued the above-named company for injuries received while in its employment. Judgment was in favor of the company in the superior court of Forsyth County, which judgment was on this appeal reversed and a new trial ordered.

The principal point of interest was the construction of section one of chapter 473, Acts of 1903, which prohibits the employment in factories of any child under the age of 12 years, this law coming for the first time before the supreme court. Only that portion of the opinion of the court which contains the conclusion as to the effect of this section of the act is reproduced. The opinion was handed down by Judge Connor, and reads in part as follows:

The act is the result of the well-considered, and we think wise, conclusion of the general assembly, reflecting and crystallizing into law the will of the people of the State. It is therefore not only our duty, but in entire harmony with our judgment, to give to the statute such a construction and application as will effectuate the intention of the general assembly, remedy and prevent the continuation of an evil which threatens the welfare of the young children, and, thereby, the best and highest interest of the State.

Before the passage of the statute the present chief justice, in *Ward v. O'Dell*, 126 N. C. 946, 36 S. E. 194, speaking for two members of this court, said that, notwithstanding there was no statute prescribing the age within which children should not be employed in mills and factories, "there is an aspect in which the matter is for the courts, that is, whether it is negligence per se for a great factory to take children of such immature development of mind and body and expose them for 12 hours per day to the dangers incident to a great building filled with machinery constantly whirring at a great speed." The same line of thought is expressed and sustained by numerous authorities, in *Fitzgerald v. Furniture Co.* 131 N. C. 636, 42 S. E. 946. Certainly with the positive prohibition imposed by the legislature against the employment of a child under 12 years of age, there can be no question that such employment is very strong, if not conclusive, evidence of negligence. If the age is known to the defendant, the employment is a positive defiance of the law; if the employment is without pursuing the method prescribed, and so easily followed, to learn the truth, its failure to do so gives it but little, if any, better status.

The fact that the statute was enacted, as we know, after several ineffectual efforts, puts an employer upon notice that in the eye of the law, based upon experience, it was dangerous to life and limb of children to be so employed and exposed to the very kind of danger by which the plaintiff was injured. To permit the defendant to escape liability for violating the statute, by saying that it did not anticipate this particular condition, with its disastrous results, would be to nullify the law. Of course, it did not anticipate this particular condition or result. If it had done so, the employment would have been not negligent, but criminal. If the plaintiff be required to show that, in every negligent act, the particular result was in fact anticipated, it would be

difficult to maintain any action for injury sustained by the negligence of another. The State says to employers that they must not take the children under 12 years of age into their mills and factories; that to do so endangers their lives and limbs, dwarfs them mentally, morally, and physically; that it is upon the children that the permanent power and welfare of the State depend. They must not, below the tender and immature age fixed by the statute, be brought into contact with iron and steel machinery propelled by the powerful agencies of steam or electricity. Considered from any point of view, the right of the child to have the opportunity to grow to at least the age named in the statute in a pure atmosphere, without danger of mutilation of body, dwarfing of mind, and to attend the schools provided by the State, the legislation is founded upon a wise and humane policy. Its violation followed by injury gives a cause of action to the child.

EMPLOYERS' LIABILITY—MINE REGULATIONS—BENEFIT OF STATUTE—CONSTRUCTION—*Indiana and Chicago Coal Company v. Neal*, Supreme Court of Indiana, 77 *Northeastern Reporter*, page 850.—In this case Neal had secured a judgment in the circuit court of Sullivan County on account of injuries received by him while in the employment of the coal company. The judgment of this court was, on appeal, reversed and a new trial ordered. The facts in the case and the statute involved are set forth in the opinion of the supreme court as delivered by Judge Gillett, from which the following is quoted:

It appears that appellee [Neal], the plaintiff below, was injured while driving with a carload of coal through a door opening in a coal mine. The door was so constructed that it was self-closing, and appellee was injured as he stood on the bumper and chain of the car, and while engaged in the effort to keep the door open as the car passed through, owing to the fact that he failed to stoop sufficiently to permit his person to escape the lintel. Appellant was charged with negligence in three particulars: (1) In not affording a doorway of sufficient height; (2) in furnishing a car that was too high; and (3) in failing to designate a person to open and close the door, as required by section 18 of an act of the general assembly, approved March 2, 1891, entitled "An act requiring the weighing of coal, providing for the safety of employees, protecting persons and property injured, providing for the ventilation of mines, prohibiting boys and females from working in mines, conflicting acts repealed, and providing penalties for violation." (Acts 1891, p. 61, c. 49.)

The principal question in the case, which we shall consider upon the evidence, is whether there can be a recovery under the third charge of negligence above mentioned, and we proceed at once to a consideration of that question: Said section 18 (section 7478, Burns' Ann. St. 1901) is as follows: "'Breaks-through' or airways shall be made in every room at least every 45 feet, and all 'breaks-through' or airways, except those last made near the working faces of the mine, shall be closed up and made air-tight. The doors used in assisting or directing the ventilation of the mine when coal is being hauled through shall be opened and closed by persons designated to do the same, so that the driver or other persons may not cause the doors to stand open."

As respects actions wherein a statute is relied on to create a duty, the general rule has been thus declared by one of the older writers: "In every case where a statute enacts or prohibits a thing for the benefit of a person, he shall have a remedy upon the same statute for the thing enacted for his advantage, or for the recompense of the wrong done him contrary to said law." (1 Comyn's Digest, "Action upon the Statute." F.) In *O'Donnell v. Providence R. Co.*, 6 R. I. 211, it is stated that the remedy for a violation of a statute is confined "to such things as are enacted for the benefit of the person suing." So it has been said that: "However great the defendant's negligence, if it was committed without violating any duty which he owed either directly to the plaintiff or to the public in a manner whereof he had a right to avail himself, * * * there is nothing which the law will redress." (Bishop, *Noncontract Law*, sec. 446.) It is stated by Judge Thompson: "The violation of a statute or municipal ordinance is not of itself a cause of action grounded upon negligence in favor of an individual, unless the statute or ordinance was designed to prevent such injuries as were suffered by the individual claiming the damages, and often not then; the question depending upon judicial theories and surmises."

There can be no doubt, construing the section of the statute which is in question in the light of section 2 of the act of 1885, regulating coal mines (section 7443, *Burns' Ann. St.* 1901), that the provision relied on was solely designed to prevent an interference with the circulation of air, especially about the men who were employed at the working faces of the mine. In other words, the purpose of the statute was to keep such doors shut as far as possible, and it was not designed to provide aid for drivers who were passing through such openings. The enactment shows that the legislature has been at the pains expressly to state its reason for requiring trappers, namely, "so that the driver or other person may not cause the doors to stand open." It was declared, in *Perkins v. Thornburgh*, 10 Cal. 189, 191, that, where a statute assumes to specify the effects of a certain provision, it will be presumed that all the effects intended by the lawmaker are stated. An apposite precedent upon the question in hand is found in the recent case of *Allen v. Kingston Coal Co.* (Pa.) 61 Atl. 572 [Bulletin 62, page 318], where reliance was placed upon a similar statute as having created a duty in favor of an employee who had been found dead at a mine door under circumstances indicating that he had been crushed between the frame of the door and the loaded car. The court said: "Appellant's case can get no assistance from the mining act of June 2, 1891 (P. L. 176). The requirement of section 10 of that act, amended by the act of April 20, 1899 (P. L. 65), that all main doors shall have an attendant, 'whose constant duty it shall be to open them for transportation and travel, and prevent them from standing open longer than is necessary for persons or cars to pass through,' has reference solely to ventilation, not to the safety of persons using the gangways. The object was to keep the doors closed."

It is clear upon the authorities that appellee can not recover by virtue of the provisions of the statute upon which he relies, but in announcing this conclusion we deem it proper to state that we have not been unmindful of the provisions of section 13 (page 59) of the same act (section 7473, *Burns' Ann. St.* 1901) that for "any injury to person or persons occasioned by any violation of this act" a right

of action shall accrue. It is true that the word "any" may be taken distributively as including all, but it is common in statutory construction so to restrain a universal word, as "all" or "every," as to make it comport with the general scheme of the statute in which it is found." * * * To quote from Sir Frederick Pollock: "There is no cause of action where the damage complained of 'is something wholly apart from the object of the act of Parliament' as being evidently outside of the mischiefs which it was intended to prevent." (Webb's Pollock on Torts, p. 25.) If this were a case in which the trespasser sought to invoke the provision requiring trappers, it would not admit of question that it would be the duty of the court so to restrain the general provisions of the section granting the remedy as to exclude him, and so here, since it is evident that some exception should be made, the general grant of a remedy should, in accordance with the maxim of Lord Bacon, "be restrained unto the fitness of the matter or person."

We have serious doubt as to the sufficiency of the complaint in respect to the charge that the lintel was constructed too low, and also as to the charge that the car was too high, but it appears unnecessary to pass on the complaint, for the reason that appellee, if he has any case, has not made out one, and we assume will be unable to make out one, within the averments of his complaint. So far as appears he could readily have stooped sufficiently to pass through the door, had he been advised that it was necessary, and therefore the charges referred to are not sustained by the evidence. Whether, since the car was a new one and the bumpers thereof were higher than on the cars which had been in use, he has a cause of action for a failure to warn him, we leave undetermined.

EMPLOYER'S LIABILITY—MINE REGULATIONS—EMPLOYMENT OF MINE MANAGERS AND EXAMINERS—VICE PRINCIPALS—CONSTRUCTION OF STATUTE—*Henrietta Coal Company v. Martin, Supreme Court of Illinois, 77 Northeastern Reporter, page 902.*—In this case a judgment against the coal company, on account of injuries received by Martin while in its service, had been affirmed by the appellate court of the fourth district, and was brought, on further appeal, to the supreme court. This court also affirmed the judgment of the court below.

The action was based on the provisions of the mining law of the State (pp. 300 et seq., Laws of 1899), which require the appointment of mine managers and examiners having certificates of competency, and which prescribe the duties of such persons. That portion of the opinion which construes these provisions is here reproduced, the case turning on the proved negligence of the employees indicated.

Judge Scott, speaking for the court, said:

Appellant first contends that as it had in its employ and on duty in its mine a certified mine manager and a certified mine examiner at the time appellee was injured, it discharged its duty to in relation to those duties which the statute prescribes shall

formed by the mine manager and mine examiner, and that it is not liable for injuries to the appellee arising from a willful failure of the mine manager to deliver props, or for a willful failure of the mine examiner to perform any duty required of him by the mining act. This is on the theory that the legislature has prescribed the duties which the operator owes to the miner in so far as examination and management of the mine is concerned, and that all that is required of the operator is that he should employ a manager and an examiner holding certificates from the State mining board, as provided by section 8 (page 307) of the act in question, and that if he does so, and he has no notice and the circumstances are not such as to put him on notice that the employees are incompetent, negligent, or otherwise unfit to perform their duties, he is not liable for any injuries occasioned by any willful violation of the mining act, or any willful failure to comply with its provisions on the part of the examiner or manager. In support of this position appellant relies principally upon the case of *Durkin v. Kingston Coal Co.*, 171 Pa. 193, 33 Atl. 237, 29 L. R. A. 808, 50 Am. St. Rep. 801 [Bulletin No. 2, p. 207], and the case of *Williams v. Thacker Coal & Coke Co.*, 44 W. Va. 599, 30 S. E. 107, 40 L. R. A. 812. [Bulletin No. 19, p. 879.] In both Pennsylvania and West Virginia, statutes were enacted which, in their general purposes, were similar to our own. The Pennsylvania statute was determined by the supreme court of that State, in the case above cited, to be unconstitutional; and it was also there said that the mining boss or foreman is a fellow-servant of the other employees of the same master, engaged in a common business; that the duty of the mine owner is to employ competent bosses or foremen to direct his operations, and that when he does this he discharges the full measure of his duty to his employees, and is not liable for an injury arising from the negligence of the foreman. The West Virginia case follows the Pennsylvania case, and the conclusion there reached is, that as the duties of the manager are prescribed by the statute, and not delegated to him by his employer, and that as he is a fellow-servant of the miner, the master is not responsible for his negligence. Under the law of this State the mine manager and mine examiner, while in the performance of the duties prescribed by statute, are not fellow-servants of the miner. We think the effect of the statute is to require of the owner of the mine the performance of those duties which the statute prescribes for the mine examiner and the mine manager. The proprietor, if an individual, may himself act in either capacity if he possesses the necessary certificate, otherwise he is required to perform such duties through the manager and through the examiner. They stand for him and are vice principals, and perform those duties, which he may not delegate to others in such manner as to relieve himself of responsibility. For any willful violation of the statute by either of them, or for any willful failure by either of them to observe its provisions, he is liable. Such has heretofore been assumed to be the law by this court. [Cases cited.]

The fact that the proprietor, if he employs men to act in these capacities, is required to employ those who have obtained the certificate from the State mining board is without significance. The purpose of that provision was, so far as possible, to guard against the possibility of the proprietor employing incompetent, or negligent, or disreputable persons, not to enable the

shift to his employees his responsibility for the management of the mine. The object of the mining act, as we gather from its various provisions, is to protect, so far as legislative enactment may, the health and persons of men employed in the mines of the State while they are in the mines. The principal measures prescribed for this purpose require the exercise of greater precaution and care on the part of the mine owner for the safety of the miners than was required by the common law. To hold that he may shift his liability to any person employed by him as examiner or manager who holds the certificate of the State mining board is to lessen his responsibility and defeat in great part the beneficent purposes of the act. To hold him liable for a willful violation of the act or a willful failure to comply with its provisions on the part of his examiner or manager, is to give force and effect to the statute according to the intent of its makers and to prolong the lives and promote the safety and well-being of the miners.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—DEPARTMENTS—SUPERIORS AND SUBORDINATES—CONSTRUCTION OF STATUTE—*Kane v. Erie Railroad Company, United States Circuit Court of Appeals, Sixth Circuit, 142 Federal Reporter, page 682.*—Thomas M. Kane was a fireman on one of two trains which were being switched in the yards of the Erie Railroad Company at Niles, Ohio, and was killed in a collision caused by the alleged negligence of one Bowker, the engineer on the other train. The conductor of Bowker's train was, at the time of the accident, in the telegraph office. The suit could not have been maintained at common law, but was based on an act of April 2, 1890 (sec. 3365-22, Bates' An. Stat.), the essential portions of which are quoted in the opinion.

The case had previously been twice before the circuit court of appeals. On the first trial a judgment in favor of the plaintiff was reversed on the ground that, on the record, Kane appeared to be guilty of contributory negligence. On retrial the circuit court denied recovery, holding that the statute in question was unconstitutional. (See Bulletin 56, p. 297.) On appeal this ruling was reversed by the circuit court of appeals and the statute was declared valid. (See Bulletin 57, p. 690.) On the third trial in the court below a verdict was directed for the defendant company on two grounds: First, that the section referred to does not apply, because Bowker, the negligent engineer, tho in control of his fireman, was not in charge of all the employees on the train, since there was a conductor; and second, because Kane was guilty of contributory negligence in putting himself in a dangerous place on the engine.

On this third appeal the circuit court of appeals reviewed these two rulings and took the contrary position on both points, remanding the case for new trial.

The opinion of Judge Richards, who spoke for the court, included a sufficient statement of the facts, together with a construction of the statute, and is reproduced practically in full.

Prior to the passage of the act of April 2, 1890, the general rule that a railroad company is not responsible to an employee for the negligence of a fellow-servant was subject in Ohio to the modification, first announced in the Stevens case, 20 Ohio, 416, and confirmed in the Keary case, 3 Ohio St. 201, that, where one employee is put under control of another, and the subordinate, without fault on his part, is injured through the negligence of the superior, while both are acting in the common service, the company is liable. Thus the actual relation of the negligent to the injured employee was held to determine the liability of the company. If the negligent employee was in control of the injured one, the company was deemed liable, because then the two were not properly fellow-servants, but one the superior of the other, and as Judge Ranney said in the Keary case, 3 Ohio St. 211:

"No service is common that does not admit a common participation, and no servants are fellow-servants when one is placed in control over the other."

Recognizing the relation of superior and subordinate as a source of liability, the act under consideration not only gives it statutory force, but broadens the liability of the company by creating as between separate branches or departments a class of constructive superiors and subordinates, who are no longer to be deemed fellow-servants. It provides (section 3, p. 150) that in all actions against a railroad company for personal injury or wrongful death, it shall be held, "in addition to the liability now existing by law:"

"(1) That every person in the employ of such company, actually having power or authority to direct or control any other employee of such company, is not a fellow-servant but superior of such other employee; and

"(2) Also, that every person in the employ of such company having charge or control of employees in any separate branch or department, shall be held to be the superior and not fellow-servant of employees in any other branch or department, who have no power to direct or control in the branch or department in which they are employed."

In sustaining the constitutionality of this act, we commented upon the ground of classification thus adopted by the legislature, and said (133 Fed. 681, 67 C. C. A. 657, 68 L. R. A. 788):

"The exercise of authority by one employee over another is thus made the test. Any employee who exercises authority over another is 'not the fellow-servant, but superior,' of such other, and every employee who exercises authority over another in his own branch or department is 'the superior, and not fellow-servant,' of an employee in a separate branch or department who exercises no authority there. If the negligent employee is, by virtue of this enactment, the superior and not fellow-servant of the injured employee, the latter did not assume the risk of his negligence, and the company is responsible. It is to be observed that the basis of the new classification made by the legislature is none other than that of the old made by the supreme

court of Ohio. The class is merely broadened by a logical extension of the rule. Under the old, the company was liable for the negligence of one who exercised authority over the employee injured through his negligence (*B. & O. R. R. Co. v. Camp*, 65 Fed. 952, 13 C. C. A. 233, 243); under the new, it is liable not only for the negligence of one who exercises authority over the employee injured, but of one who, exercising authority in one branch or department, by his negligence causes the injury of an employee in another who exercises no authority there."

But the court below, after a careful analysis of the act and the cases under it, reached the conclusion that the constructive class of superiors created by the second clause is limited to employees in charge and control of separate branches and departments; in other words, to be a superior under this clause, the employee must be in charge and control of all employees in his separate branch or department. The possibility of this construction was suggested in the opinion of this court, delivered by Judge Cochran, when the case was first before it, but the question was left undecided. (118 Fed. 223, 55 C. C. A. 134.) The question is a nice one, and we regret it has not been directly determined by the supreme court of Ohio, the proper tribunal to construe an Ohio statute. We shall give it, however, our best judgment.

The Ohio rule laid down in the *Stevens* and *Keary* cases contemplated a common employment wherein the superior was in charge or control of the subordinate. The rule obviously could not apply in the case of separate branches or departments, whatever the relative position of the employees in such branches or departments. Counting separate trains as separate branches or departments, a brakeman on one train could not be held the subordinate of a conductor on another train, or the latter the superior of the former. Through this resulted what was charged in the dissent to be the injustice of the holding in *P., Ft. W. & C. Ry. Co. v. Devinney*, 17 Ohio St. 198, where a brakeman, injured by the negligence of the conductor of a separate train, was held to have no right to recover, although he might have maintained an action if he had been hurt through the negligence of the conductor of his own train. The framers of the act may have had in mind this decision.

Coming to the act itself, the meaning of the first clause is plain. It states the Ohio doctrine of superior and subordinate. Every employee actually having authority to direct or control any other employee is not the fellow-servant, but superior, of such other employee. To be such superior, it is not necessary that the employee shall have authority to direct or control more than the one employee who is made his subordinate. He does not have to be in control of a branch or department, or represent the company as a vice principal. The simple relation of superior and subordinate between the two is all that is required; but that is required, and, if absent, the rule does not apply. Thus, an engineer is not the superior of a brakeman, when both are employed on the same train, although the engineer is the superior of his fireman, and the brakeman is the superior of no one. (*Railway Co. v. Lewis*, 33 Ohio St. 196; *Railway Co. v. Shanower*, 70 Ohio St. 166, 71 N. E. 279.)

Coming to the second clause, three things are involved, a separate branch or department, a superior therein, and a subordinate in another branch or department. A "branch" or "department" is not

defined, but, as held in the Margrat case, 51 Ohio St. 130, 144, 37 N. E. 11, the terms evidently refer to the small divisions which separate the employees from one another while at work, and in this sense a train is a separate branch or department. A subordinate is an employee who has no power to direct or control in the branch or department in which he is employed. A superior in a separate branch or department, for whose negligence the company is liable, is an employee "having charge or control of employees in any separate branch or department." The statute does not provide, as it easily might have done, that to be a superior the employee must have charge or control of the separate branch or department, or of all the employees therein, but simply of employees therein; that is, as construed in the Margrat case, of any employee therein. (51 Ohio St. 144, 37 N. E. 11.)

Thus the legislature divided all the employees of a railway company, working in separate branches and departments, into superiors and subordinates; superiors being all those having some authority, and subordinates those having none. The line of distinction is clear. As between separate branches or departments, the company is only liable for the negligence of superiors, and only responsible for injuries done to subordinates. If a subordinate is given charge or control of a coemployee, he ceases to be a subordinate; but, according to the court below, he does not become a "superior," unless he is given charge or control of all the employees in the particular branch or department. Certainly, under the first clause, he becomes the actual superior of the employee under him, and the company is liable if the latter is injured through his negligence, and we think he also becomes the constructive superior of all employees in separate branches or departments who exercise no authority there. If one of them is hurt through his negligence, in our opinion the company is liable. In this connection, it is to be noted that, while an employee may be the constructive superior of all the subordinates in separate branches and departments, he is not the constructive superior of any subordinate in his own department, and is the actual superior only of those he really directs and controls.

This construction seems to us to be sustained by the cases decided, although the precise point was not raised. In the Margrat case, 51 Ohio St. 130, 37 N. E. 11, a brakeman was injured by the negligence of the engineer of another train. It is true it is not stated there was a conductor on that train. Probably there was not. The court apparently gave no consideration to the question whether there was or was not. It did not consider whether the engineer was or was not in charge of the train. It did consider and determine that the train was a separate branch or department, and then took up the question whether the engineer had charge or control of any employee in such separate branch or department. It was conceded the engineer had charge of the engine and of the fireman thereon, and the court held this was sufficient. It was not necessary that he should have control of more than one employee. To have control of "any coemployee whatever" (page 144, 51 Ohio St., page 11, 37 N. E.) was enough. Respecting the relation of superior and subordinate, created by the statute, the court says (page 144, 51 Ohio St., page 14, 37 N. E.):

"But the statute, we think, declares that relation to exist, as a matter of law for the purpose of charging the company, if the engineer

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e Ranney, speaking for the court, and referring to the Stevens 20 Ohio, 416, said (page 204):

n that case, as in this, it was left in doubt whether the negligence complained of, and upon which the jury found their verdict, was that of the superintendent or conductor. In this case as in that, it is necessary to find the company liable for the negligence or carelessness of both the superintendent and conductor, before the judgment can be affirmed, as the instruction covered both, and it can not now be held upon which the carelessness and negligence was fixed by the evidence.

We are satisfied, from the action of the supreme court of Ohio in these two cases, that it would construe the statute as we do, not as requiring an employee to be in charge or control of a separate branch or department, and of all the employees therein, in order to constitute a constructive "superior" within the meaning of the statute, but only to be in charge or control of another employee, or as the court put it, "any coemployee whatever," in such branch or department. This construction, we think, not only simplifies the act and contributes to its coherence, but will facilitate its proper enforcement by making plain its requirements. It is much easier to prove that an employee is in control of another employee than that he is in control of all the employees in a particular branch or department, for it is not necessary to place a branch or department in control of a single employee. Take the case of a train. The control of the employees thereon might by rule be readily distributed among several employees, so that, while each might have control of one or more, neither would have control of all, and so the train could be put in the singular situation of having several actual but no constructive superiors aboard.

Kane was hurt while cleaning his locomotive. It was then about half past 6 o'clock in the morning. He had gone on duty at 6. The locomotive was backing slowly, drawing after it 10 or 12 cars; that next the engine being a gondola. The engineer stated that the train was "just merely going," it had "just about come to a stop." A witness for the defense estimated its speed at about 3 miles an hour. When the collision occurred, Kane was standing on the front part of the engine, wiping the number plate or the headlight with a piece of waste, which he held in his left hand. The engine had no pilot, but what is called a bunting beam, having underneath a footboard, and on top a hand rail. There was also a hand rail running around the boiler from the cab on one side to the cab on the other, high enough above the running board to afford a good hold. The evidence was conflicting as to precisely where Kane was standing when the collision occurred. Baldwin, a witness for the defendant, put him on the bunting beam directly in front of the boiler, and says he was wiping the headlight. Rhie, a witness for the plaintiff, says he was standing on one end of the bunting beam holding to the hand rail along the boiler with his right hand, while his left was wiping either the end of the boiler or the headlight; he was facing the engine. Other witnesses testified that he could not stand directly in front of the headlight without standing on the round hand rail above the bunting beam; that the natural place for him to stand was to one side, holding to the hand rail along the boiler. Bowker's train was running at a speed of about 10 miles an hour when it struck the tender of the engine on which Kane was working. The tender and engine was

forced back, and the body of the gondola was torn from the draft timbers and shot up against the front of the engine, breaking the number plate and headlight. In some way Kane was thrown off or caught. He was found dead lying on the draft timbers of the gondola, cross-ways of the track. A bolt had, apparently been driven through his back.

On the first trial, the following rule respecting firemen was in evidence:

"They must report for duty at the appointed times; attend to the fires of the locomotive when on the road, and to taking water and oiling the machinery; assist engine-man in watching for signals and obstructions, clean and polish their locomotives at the end of each trip, and assist in making repairs when necessary."

The reversal of the judgment on the first trial, and the holding that the record showed a case of contributory negligence, was based not simply on the fact that the evidence showed that Kane was in a dangerous place, but was there in violation of the above rule in two respects: He was cleaning the locomotive, not at the end of the trip, but while it was in motion, and he was not assisting the engineer in watching for signals and obstructions, a thing he ought to have been doing. The court held that he was guilty of contributory negligence in being in a dangerous place in violation of a rule of the company; that, if he had been at his post of duty, in the cab of the engine, watching for signals and obstructions, the collision would not have caught him.

The court below could see no substantial difference in the case presented on the last trial from that on the first, and therefore naturally felt bound by the former ruling. But we find a material difference resulting from the elimination of the rule. On the last trial, there was evidence to justify a finding that the rule in question, so far as it required the locomotive to be cleaned only at the end of each trip, had been abrogated in accordance with the doctrine of *Railway Co. v. Craig*, 73 Fed. 642, 19 C. C. A. 631; *Id.*, 80 Fed. 488, 25 C. C. A. 585. The evidence was overwhelming to the effect that the firemen of this company at the time of the accident worked from 6 in the morning to 6 at night, and always cleaned their engines during the day, sometimes while they were standing still and sometimes while in motion; and that this custom was known to and sanctioned by the company. In cleaning his engine at the time he did, Kane was therefore only doing his work under the modified rule. Being in the discharge of his duty, he was where he had a right to be, and was not violating the rule requiring him to look out for signals and obstructions. That part of the rule had no more application to him when at work cleaning the engine than when at work shoveling coal into the fire box. Besides, it may be said in this connection there was testimony tending to show that Kane was standing on the end of the bunting beam facing the cab window, through which he had a view of the track ahead and could thus assist the engineer in watching for signals and obstructions. Moreover, the collision did not result from any failure to watch for or observe either a signal or an obstruction. It resulted from the sudden and unexpected negligence of Bowker—a thing which could neither have been foreseen nor prevented.

With the rule out of the way, the Jones case, 95 U. S. 439, 24 L. Ed. 506, and Kresanowski case (C. C.) 18 Fed. 229, cease to apply. In those cases the injured persons seated themselves on the pilots of the engines which were running head on—an extremely dangerous place under the circumstances. And they did this without reasonable cause or excuse. When Kane went out on the running board to clean the engine, it had almost stopped. He was in no more danger than he would have been on the rear of the tender if the gondola had been coupled to it, or than a brakeman, standing on the front end of the gondola, would have been. Any place where there is a coupling is dangerous in case of a collision, but how dangerous, and whether a fireman or brakeman of ordinary prudence should and would avoid such a place while his train was moving slowly and just about to stop, is, we think, a question for the jury under all the circumstances of the particular case. With the rule practically out of the way, it seems to us, in view of the conflict of evidence, that the question whether Kane was or was not guilty of negligence in being where he was, and doing what he did, should have been submitted to the jury under proper instructions. It was peculiarly a question for such a body to pass on.

If it be said that, in our first opinion, we stated that, irrespective of the rule, Kane was in a dangerous position, and therefore was negligent, it will be seen, upon a careful reading, that we held the Jones and Kresanowski cases applicable, because Kane had no reasonable occasion for being where he was. We said (118 Fed. 223, 55 C. C. A. 138):

"It would seem it was negligence for the defendant to be where he was, because of the great danger of that position, and the absence of reasonable occasion for his being there."

And on page 139, 55 C. C. A., page 232, 118 Fed.:

"But, as we have seen, the work was not required or even authorized, and his being there was therefore entirely without reasonable occasion for it."

But, under the modified rule, the work of cleaning the engine was authorized, and there was therefore reasonable occasion for his being where he was. It does not seem to us just that the railroad company, while it sanctions the practice of its firemen in cleaning their engines under such circumstances as existed here, should be permitted to say it was necessarily dangerous, and that a fireman in pursuing that practice is, as matter of law, guilty of contributory negligence.

The judgment is reversed, and the case remanded, for further proceedings not inconsistent with this opinion.

EXAMINATION AND LICENSING OF PLUMBERS—POLICE POWER—CONSTITUTIONALITY OF STATUTE—*State ex rel. Richey v. Smith*, Supreme Court of Washington, 84 Pacific Reporter, page 851.—A. J. Richey was convicted in the superior court of King County of a violation of chapter 66, Laws of 1905, which forbids engaging in business as a journeyman plumber without having procured a license, and was committed to jail. A writ of *habeas corpus* was sued out on the ground that his restraint and *detention* was illegal, the act

under which he was held being unconstitutional. The supreme court supported this contention, and ordered Richey discharged.

The opinion of the court was delivered by Judge Rudkin, from which the following is quoted:

The power of the legislature to make all needful rules and regulations for the health, comfort and well-being of society can not be questioned, but there are certain limits beyond which the legislature can not go, without trenching upon liberty and property rights which are safeguarded by the State and Federal constitutions. As said by the court in *re Jacobs*, 98 N. Y. 108, 50 Am. Rep. 636: "The limit of the power can not be accurately defined, and the courts have not been able or willing definitely to circumscribe it. But the power, however broad and extensive, is not above the constitution. * * * Generally it is for the legislature to determine what laws and regulations are needed to protect the public health and secure the public comfort and safety, and while its measures are calculated, intended, convenient, and appropriate to accomplish these ends, the exercise of its discretion is not subject to review by the courts. But they must have some relation to these ends. Under the mere guise of police regulations, personal rights and private property can not be arbitrarily invaded." And in *re Aubrey*, 36 Wash. 308, 78 Pac. 900, 104 Am. St. Rep. 952 [see Bulletin No. 58, p. 994], this court said: "It may be stated as a general principle of law, that it is the province of the legislature to determine whether the conditions exist which warrant the exercise of this power; but the question, what are the subjects of its exercise, is clearly a judicial question. One may be deprived of his liberty, and his constitutional rights thereto may be violated, without the actual imprisonment or restraint of his person. 'Liberty' in its broad sense, as understood in this country, means the right, not only of freedom from actual servitude, imprisonment or restraint, but the right of one to use his faculties in all lawful ways, to live and work when he will, to earn his livelihood in any lawful calling, and to pursue any lawful trade or avocation. All laws, therefore, which impair or trammel these rights—which limit him in his choice of a trade or profession—are infringements upon his fundamental rights of liberty, which are under constitutional protection."

We can not close our eyes to the fact that legislation of this kind is on the increase. Like begets like, and every legislative session brings forth some new act in the interest of some new trade or occupation. The doctor, the lawyer, the druggist, the dentist, the barber, the horseshoer, and the plumber have already received favorable consideration at the hands of our legislature, and the end is not yet, for the nurse and the undertaker are knocking at the door. It will not do to say that any occupation which may remotely affect the public health is subject to this kind of legislation and control. Our health, our comfort, and our well-being are materially affected by all our surroundings—by the houses we live in, the clothes we wear, and the food we eat. The safety of the traveling public depends in no small degree on the skill and capacity of the section crews that build and repair our railroads, yet are we on this account to add the architect, the carpenter, the tailor, the shoemaker, those who produce and prepare our food, and all the rest to the ever-growing list? If so, it

will be but a short time until a man can not engage in honest toil to earn his daily bread without first purchasing a license or permit from some board or commission. The public health is entitled to consideration at the hands of the legislative department of the Government, but it must be remembered that liberty does not occupy a secondary place in our fundamental law. Under some of the acts to which we have referred members of the board of health form part of the examining board, but our act has not even this saving grace. By its terms two master plumbers and one journeyman plumber are constituted the guardians of the public health and welfare. We are not permitted to inquire into the motive of the legislature, and yet, why should a court blindly declare that the public health is involved, when all the rest of mankind know full well that the control of the plumbing business by the board and its licensees is the sole end in view. We are satisfied that the act has no such relation to the public health as will sustain it as a police or sanitary measure, and that its interference with the liberty of the citizen brings it in direct conflict with the Constitution of the United States.

The judgment should be reversed, and the prisoner discharged; and it is so ordered.

Judge Root, concurring, said:

To the foregoing may be added this thought: The liberty and natural rights of a citizen—such as his privilege to engage in a lawful vocation for a livelihood—can be denied him by the legislature only where such deprivation is necessary to accomplish a given result essential to the welfare of the public. If that result can be attained in a practicable manner without interference with such liberty and rights, there is an absence of that necessity which is an essential and prerequisite to the validity of such a statute.

In the case at bar the only justification urged in behalf of the statute is that good plumbing is necessary to the health of people in cities having over 10,000 inhabitants. Avowedly it is sought to insure good plumbing by means of this statute. It is self-evident that the same, or a better, result can be obtained by means of statutes or ordinances requiring good plumbing, and insuring it by means of adequate inspection. Such a statute or ordinance would not interfere with the liberty or natural rights of any person, and would safeguard the health of the public as fully as, or more so than, the statute now in question. It therefore follows that the liberty and natural rights of the individual are infringed by this statute unnecessarily and, consequently, unconstitutionally.

HOURS OF LABOR OF FEMALE EMPLOYEES—POLICE POWER—CONSTITUTIONALITY OF STATUTE—*State v. Muller, Supreme Court of Oregon, 85 Pacific Reporter, page 855.*—Curt Muller was convicted in the circuit court of Multnomah County of a violation of an act of the Oregon legislature, page 148, Acts of 1903, which limits to ten per day the number of hours of employment of females in factories. Muller appealed on the question of the constitutionality of the act referred to. The statute was held to be valid and the judgment of the J-

was affirmed, as appears from the following quotation from the opinion of the court as delivered by Judge Bean:

The right to labor and to contract for labor, like all rights, is itself subject to such reasonable limitations as are essential to the peace, health, welfare, and good order of the community, and, as said by the Supreme Court of the United States: "A large discretion is necessarily vested in the legislature to determine, not only what the interests of the public require, but what measures are necessary for the protection of such interests." (*Lawton v. Steele*, 152 U. S. 133, 14 Sup. Ct. 499, 38 L. Ed. 385.) In *Holden v. Hardy*, 169 U. S. 366, 18 Sup. Ct. 383 [see Bulletin No. 17, p. 625], the court, referring to the limitations placed by a State upon the hours of workmen in underground mines, said: "These employments, when too long pursued, the legislature has judged to be detrimental to the health of the employees, and, so long as there are reasonable grounds for believing that this is so, its decision upon this subject can not be reviewed by the Federal courts." And in the subsequent case of *Gundling v. Chicago*, 177 U. S. 183, 20 Sup. Ct. 633, 44 L. Ed. 725, the court uses this language: "Regulations respecting the pursuit of a lawful trade or business are of very frequent occurrence in the various cities of the country, and what such regulations shall be and to what particular trade, business, or occupation they shall apply, are questions for the State to determine, and their determination comes within the proper exercise of the police power by the State, and unless the regulations are so utterly unreasonable and extravagant in their nature and purpose that the property and personal rights of the citizen are unnecessarily, and in a manner wholly arbitrary, interfered with or destroyed without due process of law, they do not extend beyond the power of the State to pass, and they form no subject for Federal interference." The legislature may not, therefore, unduly interfere with the liberty of contract, or arbitrarily limit the right of a citizen to enter into such contracts as to him may seem expedient or desirable; but it may prescribe reasonable regulations in reference thereto and limitations thereon to promote the general welfare and guard the public health, and the power of the courts to review such regulations exists only "when that which the legislature has done comes within the rule that if a statute, purporting to have been enacted to protect the public health, the public morals, or the public safety, has no real or substantial relation to those objects, or is beyond all question a plain, palpable invasion of rights secured by the fundamental law." (*Jacobson v. Massachusetts*, 197 U. S. 11, 31, 25 Sup. Ct. 358, 49 L. Ed. 643.)

Now, the statute in question was plainly enacted, although not so declared therein, in order to conserve the public health and welfare by protecting the physical well-being of females who work in mechanical establishments, factories, and laundries. Such legislation must be taken as expressing the belief of the legislature, and through it of the people, that the labor of females in such establishments in excess of ten hours in any one day is detrimental to health and injuriously affects the public welfare. The only question for the court is whether such a regulation or limitation has any real or substantial relation to the object sought to be accomplished, or whether it is "so utterly

unreasonable and extravagant" as to amount to a mere arbitrary interference with the right to contract. On this question we are not without authority. Legislation limiting the hours during which women may be employed is in force in several of the States of the Union, and, so far as we are advised, such legislation has everywhere been upheld, except in the State of Illinois.

Judge Bean then reviewed a number of cases, and continuing said:

The case of *Ritchie v. People*, 155 Ill. 98, 40 N. E. 454, 29 L. R. A. 79, 46 Am. St. Rep. 315 [see Bulletin No. 2, p. 203], is the only decision to which our attention has been called, or which we have been able to find, in which an act of the kind under consideration has been held unconstitutional and void. The case is well considered and ably presented, but is, we think, borne down by the weight of authority and sound reason.

We are of the opinion, therefore, that the act in question is not void because an arbitrary and unwarranted limitation of the right of contract, but is within the police power of the State. Nor can we concur with counsel that it is an arbitrary and unwarrantable discrimination against persons engaged in the particular businesses or employments specified, because persons in other businesses or callings are not prohibited from requiring or permitting their female employees to work more than ten hours a day. Nearly all legislation is special in the objects sought to be obtained or in its application, and the general rule is that such legislation does not infringe the constitutional right to equal protection of the laws when all persons subject thereto are treated alike under like circumstances and conditions.

The judgment is affirmed.

LABOR ORGANIZATIONS—DAMAGES—LIABILITY OF MEMBERS—
DUE PROCESS OF LAW—*F. R. Patch Manufacturing Company v. Capeless et al.*, *Supreme Court of Vermont*, 63 *Atlantic Reporter*, page 938.—The company above named had secured judgment for damages in an action against Protection Lodge, No. 215, International Association of Machinists, on account of injuries caused by a boycott by the association, and other interference with the business of the company. (See Bulletin No. 59, p. 367.) This judgment remaining unsatisfied, the company sued Capeless and others, associates and members of Protection Lodge, No. 215, to recover from them personally the amount due on the judgment against the association.

The action was brought in the Rutland County court. Capeless and his codefendants demurred to the declaration and denied their individual liability on a judgment against the association. This demurrer was overruled and the declaration was held to be sufficient. The case was then taken to the supreme court on exceptions to these rulings, which were, however, sustained, and the case was remanded for further proceedings in the court below.

The opinion of the court, as delivered by Judge Watson, is reproduced in full. After stating briefly the history of the case, Judge Watson said:

Section 1099, V. S., under the provisions of which Protection Lodge, No. 215, was thus sued in its associate name and service of process made upon its president, reads as follows: "A partnership, or an unincorporated association or joint stock company, consisting of five or more persons having a president, other principal officer, clerk or treasurer may sue and be sued in its firm, associate or company name, and service of process against such partnership association, or company, made upon either of such officers shall have the same force and effect as regards the joint rights, property, and effects of the partnership, association, or company as if served upon all the partners, associates, or shareholders." The present suit, which may be regarded as supplementary, is brought against alleged associates and members of Protection Lodge, No. 215, for the amount unpaid on that judgment, upon section 1183, V. S., which reads: "If execution on a judgment obtained against a partnership, association, or company in its firm, associate or company name is returned unsatisfied in whole or in part, a suit for the amount unpaid may be brought against any or all of the partners, associates, or shareholders upon their original liability, provided that only one such suit shall be brought and maintained at the same time, and if the execution issued in the last-named suit is returned unsatisfied in whole or in part, subsequent actions may in like manner be maintained for the amount unpaid."

At common law an unincorporated association, as regards its rights and liabilities, is fundamentally a large partnership. The relation of the members composing it is to each other and to the outside world, that of partners. (*Walker v. Wait et al.*, 50 Vt. 668; *Burnes v. Pennell*, 2 H. L. Cas. 497.) Partnership debts are the debts of each partner in solido (3 Kent's Com. 32; *Cutler v. Estate of Thomas*, 25 Vt. 73), and at law both separate and joint creditors may attach either separate or joint property and sell it on execution in satisfaction of their judgments without regard to equities existing between their debtors. But in equity partnership effects must be applied in satisfaction of partnership debts and liabilities in preference to debts due creditors of the individual partners; and to the extent that partnership debts and liabilities are not fully paid by the joint property, they stand the same as other debts against each partner's separate estate. (*Bardwell v. Perry*, 19 Vt. 292, 47 Am. Dec. 687; *Washburn v. Bank of Bellows Falls*, 19 Vt. 278; *Barton National Bank v. Atkins*, 72 Vt. 33, 47 Atl. 176.) It is also a well-established rule that a firm or unincorporated company must sue and be sued in the names of its individual members, however numerous they may be. (*Dicey on Parties*, 147, 266.) Yet as we have seen, by section 1099, V. S., any partnership, unincorporated association, and joint-stock company falling within its provisions, may sue and be sued in its firm, associate, or company name, and that service of process made upon either of its officers named in that section shall have the same force and effect as regards the joint rights, property, and effects of the partnership, association, or company as if served on all the members. That section of the statute and the section upon which this action is brought, in their

original form, were parts of the same act No. 71, p. 71, Laws of 1882, and must be construed together.

Such partnerships, associations, and joint-stock companies may be, and often are, not only composed of many different members, residents of different States and countries, but constantly changing by some dropping out and others coming in. Manifestly this statute was enacted for the practical convenience and benefit of the partnership, associations, and companies to which it relates, as well as for the convenience and benefit of creditors, in bringing and prosecuting suits. In operation it inures also to the more substantial benefit of the individual partners, associates, and shareholders. We do not consider whether or not the procedure therein provided is exclusive. But surely when the statute is invoked to enforce liabilities against partnerships, associations, or companies, the members have the benefit of equity principles in that the joint property must first be taken to satisfy judgment, and it is only for the amount unpaid when executions against such property are returned wholly or in part unsatisfied that suits can be brought against the individual members and their separate property taken. In the first instance the obligation of each partner to the others and to creditors is in nature contractual at common law. By section 1183, partners, associates, and shareholders are made individually liable to execution creditors for the amount of a judgment unpaid after an execution against the joint property has been returned unsatisfied in whole or in part, with the further limitation that only one suit against members shall be brought and maintained at the same time, and if the execution in the last suit is not returned fully satisfied, subsequent actions can be had in like manner for so much as remains unpaid. Here the liability of the individual members in its modified form is contractual in nature by operation of the statute. In legal effect each member when he becomes such thereby obligates himself to the other members and to all persons who may hold liabilities against the firm, association, or company of which he becomes a member, for the payment of the amount unpaid on judgments against it after the joint property has been taken in execution and applied thereon, and this obligation is in law as much a part of every contract and liability against the partnership, association, or company as it would be if it had been directly entered into by the members in connection therewith. The statutory liability here imposed is analogous to the statutory liability of individual stockholders for the debts of a corporation. In cases involving the latter it is held that the stockholders by availing themselves of the benefits to be derived from the corporate organization impliedly agree to be responsible for the debts of the corporation; that creditors contract with reference to it; that it becomes a part of the law of their contracts; and that when a person becomes a stockholder this liability rests upon him as an incident to his stock. (*Barton National Bank v. Atkins*, before cited; *King v. Cochran*, 76 Vt. 141, 56 Atl. 667, 104 Am. St. Rep. 922; *Whitman v. National Bank*, 176 U. S. 559, 20 Sup. Ct. 477, 44 L. Ed. 587.)

It is strenuously urged, however, that the action under the provisions of section 1183 must be based upon the "original liability," and that this action is not of that character. The statute provides that "a suit for the amount unpaid may be brought against any or

all of the partners, associates, or shareholders upon their original liability." It is evident from the section as a whole that the remedy there given is statutory, consequently that the actions must be based upon the statute, and brought to recover the amount unpaid on the judgment, rather than for the sum due or for damages on the liability merged in the judgment. The amount to be recovered is fixed by the judgment, which is inconsistent with the idea that the supplemental suit against a member must be upon the same cause of action as that upon which the judgment was obtained. And such inconsistency is the more noticeable when we consider that the judgment may have been recovered in an action *ex delicto*, where the damages were unliquidated. We think the words "original liability" as used in that section, have reference to the liability consequent on membership in the partnership, association, or company at the time of the creation of the liability upon which the judgment was recovered. As to the partnership, association, or company, the judgment is conclusive. It is also conclusive in respect to all matters involved in the suit upon all persons who were members when the liability merged in the judgment was created. All such persons had an "original liability" within the meaning of section 1183, while persons whose membership had then ceased or did not commence until subsequent thereto, had no such "original liability" as makes them responsible in supplemental proceedings under the statute. It may happen that the original action was based upon several distinct contracts and that the defendants in the supplemental suit were members when some of the contracts only were made, in which event their liability under the statute would be limited accordingly. Thus "upon their original liability" as it may be made to appear depends their statutory liability for the amount unpaid on the judgment. In the original action against Protection Lodge, No. 215, the question whether the defendants in this supplemental suit were members of that association at the time when, etc., was not tried or decided, nor involved in the judgment recovered. It follows that whether they were such members is an open question in this suit and one upon which they are entitled to be heard. (*Wilson v. Seligman*, 144 U. S. 41, 12 Sup. Ct. 541, 36 L. Ed. 338; *Clark v. Cullen*, 9 Q. B. Div. 355.)

It is further contended that since in the original suit against the association no personal service of process was made upon the individual members, they can not be bound by the judgment, and that to hold otherwise would be to take their property without due process of law and in violation of the fourteenth amendment of the Constitution of the United States. At common law, in a partnership the members do not form a collective whole distinct from the individuals composing it. The rights and liabilities of a partnership are the rights and liabilities of the partners, and are enforceable by and against them individually. The association of which the defendants are alleged to have been members is composed of more than five members, has an associate name, a president, other principal officer, clerk or treasurer. The associate name is nothing more than the collective name for all the members. (*Taff Vale Railway Co. v. Amalgamated Society of Railway Servants*, L. R. 1901, App. Cas. 426; *Lewis & Co. v. Locke*, 41 Vt. 11.) In providing that suits

may be brought by or against such partnerships, associations, or companies in their firm, associate, or company name, the statute recognizes an entity separate and distinct from the members and specifies in what manner service of process may be made upon it. Yet with this recognition the individual members are none the less concluded by the judgment; for, first, considered as such entity the relation of the members thereto is analogous to the relation of stockholders to a corporate entity. They are so far an integral part of it that in the view of the law they are privy to the proceedings touching the body of which they are members. (*King v. Cochran and Whitman v. National Bank*, before cited.) And, secondly, as we have before seen, in becoming members they impliedly contracted with reference to these provisions of the statute and are bound by them. The implied agreement in this respect covered not only the liability but the method in which the extent of that liability shall be determined. This doctrine was laid down and applied in *King v. Cochran* where the liability of a stockholder in a corporation was involved, and it is equally applicable here. Regarding this principle it is said in *Freeman on Judgments*, vol. 1, sec. 176: "In many instances, the relation of the nominal parties to the suit to other persons is such that the latter are conclusively bound by a judgment against the former, in the absence of fraud or collusion, although they are not notified of the pendency of the suit, and are not called upon to conduct its prosecution or defense. In respect to the question, Who are these parties whose interests are thus inseparably associated? the decisions are often inconsistent; but undoubtedly the general principle sanctioned by a vast preponderance of authority is, that every person who has made an unqualified agreement to become responsible for the results of a litigation, or upon whom such responsibility is cast by operation of law in the absence of any agreement, is conclusively bound by the judgment." It follows that the defendants' property is not being taken without due process of law, for no fundamental rights secured by the fourteenth amendment are denied, and the forms of procedure in the State courts are not controlled thereby. (*Louisville & N. R. Co. v. Schmidt*, 177 U. S. 230, 20 Sup. Ct. 620, 44 L. Ed. 747.)

One of the defendants moved to dismiss the suit for that the alleged cause of action set forth in the declaration is not founded on contract, express or implied, hence it being brought by trustee process the court is without jurisdiction. We have already seen that the liability of the members under the statute upon which the action is based is contractual in nature. The action is, therefore, founded on an implied contract and properly brought by trustee process. (V. S. 1304.) The exception by the Delaware and Hudson Company to the overruling of the motion to quash the return of service upon it is not relied upon here.

The pro forma judgment overruling the motion to dismiss, overruling the motion to quash, overruling the demurrer, and adjudging the declaration sufficient, is affirmed, and cause remanded.

LABOR ORGANIZATIONS—ENFORCEMENT OF BOYCOTT ORDERS—EXTORTION—*March v. Bricklayers and Plasterers' Union No. 1 et al.*, *Supreme Court of Errors of Connecticut*, 63 *Atlantic Reporter*, page 291.—George L. March was a manufacturer of bricks at Hartford, Conn., and disposed of his output to various "boss masons" and contractors. The union named had adopted an agreement that none of its members should work for a "boss mason" who employed other than union men and also penalized any employer who should buy bricks of a manufacturer who sold to "unfair" contractors. March had sold bricks to a "boss mason" who was classed by the union as "unfair," and subsequently sold some to one Flynn a "fair" contractor. The business agent of the union called on March and Flynn and told them that unless Flynn would agree to become March's surety for the payment of a fine of \$100 assessed against him by the union, Flynn's men would be called out. After considerable effort to make other adjustments, Flynn paid the sum for March and held it out of the amount due the latter for bricks. March then sued in the court of common pleas of Hartford County to recover from the union the sum named, alleging that it was secured by a conspiracy to extort the payment, and further that the defendants had conspired and combined to injure him in his business and property unless the sum was paid. March secured a judgment ordering the money to be repaid, whereupon the union appealed, the appeal resulting in an affirmance of the findings of the lower court.

The views held by the supreme court of errors are indicated in the following extracts from its opinion as delivered by Judge Prentice:

The contention between the parties becomes primarily resolved into one as to whether the conceded confederation of the defendants through which the payment was obtained was an unlawful one by reason of the unlawful character of either its object or the means employed. The defendants say that the object was the ultimate object of the union, to wit, among other things, the promotion of the welfare of its members and the advancement of their rights and privileges as laboring men, or, if not that, the freeing of themselves from the competition of those not members of the union, or, if not that, and the object is to be brought into closer relation to the matters in controversy, the compelling of "unfair" bosses to become "fair." The plaintiff finds the object sought in the immediate injury attempted to be inflicted upon him—the extortion of the one hundred dollars from him as the price of his freedom from harassment in the marketing of his product. The question before us thus becomes narrowed down to the single inquiry as to whether or not the defendants in the pursuit of their object, whether it be regarded as their general welfare as laboring men, or the diminution of outside competition, or the enlargement of their field of opportunity by increasing the number of employers of union labor only, used unlawful means.

The salient facts in the story spread upon the record are that this defendant association through their representative, the defendant Butler, demanded of the plaintiff the payment to them of a sum of

money upon the threatened alternative that, if payment was refused, he would by their action in refusing to handle his product in their work then in progress be annoyed and harassed in the enjoyment of the benefit of the market for that product which he had obtained, and in all probability be wholly deprived of that market. The action thus threatened was within the power of the defendants to take. The consequences which would flow to the plaintiff from it, if taken, were such as might well excite in him a reasonable apprehension of serious injury. To the pressure thus brought to bear upon him he yielded and paid the sum exacted. There is nothing in the record to relieve this picture. It does not improve it to say that the defendants were seeking to enforce a penalty or to collect damages assessed. They had no right to inflict a penalty upon or assess damages against this man, who owed them no duty through association in the membership of the union, by contract or otherwise. The plaintiff owed them nothing. To overawe him into the payment of something by means of threats of injury in their power to inflict and of such a character as to naturally arouse a reasonable apprehension of serious consequences to him, in the event of his refusal, was an act of the purest extortion, using that word in its widest meaning, by means of threats and intimidation, and in the plainest violation of our statute (Gen. St. 1902, sec. 1296), our decisions, and the universally accepted principles of the common law. (*State v. Glidden*, 55 Conn. 46, 8 Atl. 890, 3 Am. St. Rep. 23; *State v. Stockford*, 77 Conn. 227, 58 Atl. 769.) [See Bulletin No. 57, p. 681.] The statement of what the defendants undertook to do easily discloses that this is not the ordinary case found in the books involving the exercise by trade, capital, or labor combinations of claimed powers in their struggles for success. These cases have not infrequently called for the determination of nice legal questions, and the application of doctrines which, while they might be pertinent to the present situation, are wholly unnecessary for the decision of the simpler question before us. The most elemental principles of justice and right which have by universal consent been adopted into the common law suffice for a conclusion that money can not be lawfully exacted of a man in the manner here successful. We are aware of no case where in the progress of a labor or trade controversy a similar attempt to extort money as the price of forbearance from threatened injurious action has ever come before the courts, save that of *Carew v. Rutherford*, 106 Mass. 1, 8 Am. Rep. 287, where the attempt is characterized as a species of annoyance and extortion which the common law has never tolerated.

It is attempted to justify the action of the union in its money demand upon the proposition that, as its members had the right to decline to handle the plaintiff's brick, they had the right to waive the exercise of that right upon such conditions as they might impose. The proposition is that money demanded and obtained as the price of forbearance from the commission of an act of injury, even when the commission of that act is held over the man to coerce and intimidate him into compliance with the demand, is lawfully obtained, if the threatened act was one which the threatener might lawfully do. Such a proposition could oftentimes be used to justify the vilest black-mailer, and is palpably unsound, in that it ignores certain elements which may be present to convert the proceeding into a wrong or a crime.

It is further said that the action of the defendants was justified in the exercise of the rights of fair trade competition. If it be assumed that these journeymen, bricklayers, and this brick manufacturer whose business touched each other, only in that the latter sold brick to persons for whom the former worked, are to be regarded as trade competitors, so that the recognized doctrines applicable to such competitors are applicable to them, it yet remains that the means resorted to in this case would not be permitted.

PAYMENT OF WAGES—BIWEEKLY PAY DAY—LAWFUL MONEY—PENALTY FOR NONPAYMENT—ATTORNEY'S FEE—CONSTITUTIONALITY OF STATUTE—*Seeleyville Coal and Mining Company v. McGlosson*, Supreme Court of Indiana, 77 *Northeastern Reporter*, page 1044.—Jacob McGlosson sued in the circuit court of Vermilion County for wages due, penalty, and attorney's fee, and from a judgment in his favor the defendant company appealed. The action was based on sections 1 and 4 of an act, page 13, Acts of 1887 (sections 7065, 7068, Burns' Ann. St., 1901), which provide for payment every two weeks, in lawful money of the United States, of wages due employees in mines and factories, with the further provision that if such payment is not made within ten days after demand a penalty of one dollar for each succeeding day shall accrue, not, however, in excess of double the original debt, which, together with a reasonable attorney's fee, shall be recoverable in a civil action.

Judgment was for an admitted sum due as wages, for twice that sum as penalty, and for an attorney's fee of \$50. The company contended that the provisions relative to the penalty and fee were unconstitutional, which contention was denied by the supreme court, and the ruling of the court below was affirmed.

From the opinion of Judge Jordan, who spoke for the court, the following quotations are presented as setting forth the conclusions on each point involved:

Counsel for appellant argue that, if this action is founded on the act of 1887, *supra* (sections 7065 and 7068, Burns' Ann. St. 1901), which we have hereinbefore set out, then they contend that it can not be maintained, for the reason asserted that all the laws fixing the time of payment of wages due to laborers are in conflict with the constitution of this State. It is contended that the invalidity of the provisions of the act of 1887 herein involved is settled by the decisions of this court in *Republic Iron, etc., Co. v. State*, 160 Ind. 379, 66 N. E. 1005, 62 L. R. A. 136. [See Bulletin No. 48, p. 1118.] The argument is further advanced that the act of 1887, providing for bimonthly [biweekly] payment of wages by the corporations, associations, etc., therein mentioned, is a violation of section 23 of our bill of rights, which declares that "the general assembly shall not grant to any citizen, or class of citizens, privileges or immunities which, upon same terms, shall not equally belong to all citizens." The case can not, as insisted by counsel for appellant, be ruled by the

in *Republic Iron, etc., Co. v. State*, supra. The statute in controversy in this latter case and the one herein involved are materially different. The distinction between the two acts is palpable. The invalidity of the statute involved in *Republic Iron, etc., Co. v. State*, supra, was, by this court attributed to the fact that the act deprived both the employer and the employee in all lines of labor of the right to contract for employment, except upon the condition that the wages earned by the employee should be paid weekly. The right of the legislature to reasonably, or to a limited extent, regulate the payment of wages, as is done under the statute in the case at bar, was not in that appeal denied by the court. It will be observed that the act of 1887 does not profess to restrict or abridge the right of contract, except as against its express requirement that the amount due the employee for labor shall be paid in lawful money of the United States. This is the only express provision thereof which prohibits the right to contract. The constitutional validity of this provision of the act was fully sustained by this court in *Hancock v. Yaden*, 121 Ind. 366, 23 N. E. 253, 6 L. R. A. 576, 16 Am. St. Rep. 396. * * * The statute is general and uniform, and operates upon all persons who come within the class to which it applies. Under the circumstances it can not in reason be asserted that the act in question, in violation of section 23 of the bill of rights, either directly or indirectly, grants privileges or immunities to any citizen or class of citizens which upon the same terms do not belong to all.

Under the provisions of section 1 of this statute the employers therein mentioned are required to pay each of their employees the amount due him for labor at least semimonthly. This requirement to pay at the time prescribed by the statute only becomes mandatory upon the employer on the demand of the employee to whom the wages are due and owing. His right under the law to semimonthly demand the amount of wages then due him is a matter wholly optional with him. It is a right which he may exercise or not as he chooses. In no manner does the statute require him to exercise this right against his own free volition. The laws enacted by the legislatures of several of our sister States, requiring a certain class of employers of laborers to pay them at stated times and prohibiting the payment in anything other than lawful money, have been assailed in the courts as unconstitutional with varying success.

As to the provision for a penalty and attorney's fee, Judge Jordan said:

The statute in this respect is reasonable and the amount of the exemplary damages assessed can neither be said to be excessive nor oppressive. It is manifest that, if the delay in paying after the expiration of the ten days allowed is short, then, consequently, the damages to be assessed will be small. The employer is in a position to prevent the assessment of these damages by either paying or tendering the amount actually due the employee before the expiration of the prescribed limit. The essential purpose of the legislature, under the circumstances, in providing for the assessment of these damages, was to enforce the performance of the duty enjoined upon the employer to pay his employee the amount of his earnings, or wages, within ten days after demand is made for the payment thereof.

According to the statute the additional amount of damages authorized to be assessed over and above the actual amount of wages due is regulated or measured at the rate of \$1 for each day which the employer allows his default in payment to continue beyond the prescribed limit. The power of the legislature, under the circumstances, as mentioned in the statute, to allow damages of the character and nature of those in question, is fully sustained by the decisions of the higher courts. [Cases cited.] The validity of the provision of section 4, authorizing the assessment of a reasonable attorney's fee as a part of the damages in the action instituted by the employee to recover the wages due him, is fully sustained.

We find no error, and the judgment of the lower court is therefore affirmed.

PROTECTION OF EMPLOYEES AS MEMBERS OF LABOR ORGANIZATIONS—CONSTITUTIONALITY OF STATUTE—*People v. Marcus*, Court of Appeals of New York, 77 *Northeastern Reporter*, page 1073.—Harry Marcus was convicted of compelling an employee to agree not to join or become a member of a labor organization as a condition of securing employment, in violation of section 171a of the penal code. On appeal, the appellate division of the supreme court overruled the judgment of the court below, on the ground that the section named is unconstitutional. This judgment was, on further appeal, sustained by the court of appeals, Judge Bartlett dissenting.

The reasons of the court for holding this section unconstitutional appear in the following extract, quoted from the opinion of Judge Chase, who spoke for the court:

In the case now before us the mandate of the statute is the substantial equivalent of an enactment that a person shall not make the employment or the continuance of an employment of a person conditional upon the employee not joining or becoming a member of a labor organization. There is nothing in the information upon which the warrant against the defendant was issued to show that there was any interference with the freedom of Scheinbaum in deciding whether he would enter into the contract with the corporation. The courts of this State recognize the right of employees and employers to organize and cooperate for any lawful purpose. Contracts for labor may be freely made with individuals or a combination of individuals, and so long as they do not interfere with public safety, health or morals they are not illegal. The views of this court as to what constitutes freedom to contract in relation to the purchase and sale of labor and as to what contracts relating thereto are lawful and enforceable, were stated with much detail and ability by the members of the court when the cases of *National Protective Association v. Cumming*, 170 N. Y. 315, 63 N. E. 369, 58 L. R. A. 135, 88 Am. St. Rep. 648 [See Bulletin No. 42, p. 1118], and *Jacobs v. Cohen*, 183 N. Y. 207, 76 N. E. 5 [See Bulletin No. 64, p. 896], were decided, and the decisions in those cases are substantially controlling in the determination of this appeal.

In *National Protective Association v. Cumming*, supra, it was said that a person may refuse to work for another on any ground that he may regard as sufficient, and the employer has no right to demand a

reason for it, but even if the reason is that the employee refuses to work with another who is not a member of his organization, it does not affect his right to stop work or to refuse to enter upon an employment. The converse of this statement must be true, and an employer of labor may refuse to employ a person who is a member of any labor organization or he may make an employment conditional upon the person employed refraining from joining or becoming a member of a labor organization. It is a well-known fact that combinations of employees and also of employers require their members to do or refrain from doing many things which they deem to their individual and combined advantage, while a person not a member of such an organization can act in accordance with the terms of such agreement as he may choose to make. A person employing labor may decide that it is to his advantage to employ only union labor, and be willing to enter into an agreement necessary to procure such labor or he may decide that it is to his advantage to employ nonunion labor, in which case he may also decide that it is to his advantage to make the employment conditional upon an agreement that such employee will not join or become a member of a labor organization.

That freedom to contract which entitles an employer to make by agreement his place of business wholly within the control of a labor union entitles him, if he so desire, to require of his employees that they be wholly independent of any labor union.

The order of the appellate division should be affirmed.

TRADE-MARKS OF TRADE UNIONS—CONSTRUCTION OF STATUTE—*Lawlor v. Charles H. Merritt and Son*, *Supreme Court of Errors of Connecticut*, 63 *Atlantic Reporter*, page 639.—Martin Lawlor, as secretary of the United Hatters of America, an unincorporated association of workmen, brought action against Merritt & Son, manufacturers of hats, to obtain an injunction and damages for attaching to the hats made by them an imitation of a union label.

General Statutes of Connecticut, sections 4907 et seq., provide that labor unions may adopt and register a label or trade-mark announcing that the goods to which the label is attached were made by a member or by members of such unions. Penalties are fixed for wrongful use, imitation, etc., and provision is made for the recovery of damages and the awarding of injunctions to prevent further violations of rights. Under this statute the superior court of Fairfield County had granted the injunction prayed for, over the defendant company's demurrer, from which the company appealed and procured a reversal.

The label offered in evidence by the plaintiff, Lawlor, as being the one that was infringed upon or counterfeited, besides a small reproduction of the label of the allied printing trades, bore only the words, "The United Hatters of North America. Union Made. Registered." One of the points in the demurrer filed by Merritt was that the label "does not announce that the goods to which such label or trade-mark is attached were made by a member or members of the union."

United Hatters of North America." On this point Judge Baldwin, speaking for the court, said:

The plaintiff has no right of action except by virtue of the statute on which he professes to sue. It was therefore necessary to bring his case within the terms of the statute. That statute protects in favor of such an association as the United Hatters of North America a label announcing that goods to which it may be attached were manufactured by a member or members of the association. The label in respect to which protection is sought by this action contains no such announcement. If it could be construed as announcing in any way who manufactured the hats to which it might be attached, the announcement would be that they were manufactured by the United Hatters of North America. The complaint, however, shows that such was not the intended meaning of the words used, for the recital of the objects for which the association was formed discloses that they do not include the manufacture of hats, and it is alleged that the label was adopted "for the purpose of announcing to the public that hats bearing said label were made by the members of the association," and is issued for the use of certain hat manufacturers who employ its members in making and finishing hats.

Judge Baldwin then continued as follows:

It appears that the association is not, and never was, a manufacturer of hats; that its members do not own the hats made by them; that its label was originally adopted and registered by the Cooperative Hat Company, which was at that time engaged in the manufacture of hats in this State; that it was assigned to the United Hatters of North America; that the latter allows its use only by manufacturers employing exclusively union labor; that it has extensively advertised and represented to the public that this label is used only on hats manufactured in union factories conducted under certain rules prescribed by the association, calculated to insure good sanitary conditions and good work; that in a few cases its use has been allowed on hats made in nonunion factories not conducted under those rules, when, before the hats went out of the factory, it had become a union factory; and that the defendants, in adopting and using their labels, had no intention of deceiving or defrauding the public or the association or its members, nor of counterfeiting its label, and have never represented hats, to which they were affixed, to be hats containing the label of the association. So far as the facts found vary from the facts alleged, they tend to weaken the plaintiff's case, by showing that the association has sometimes allowed the label to be used in hats not even made by its members, although sold by a union manufacturer, and that the defendants have been guilty of no fraud. That the label of the United Hatters of North America has never been used nor intended for use on hats manufactured by the association remains clear.

The statute on which the plaintiff sues was designed to create both a new right of action and a new cause of action. (*Tracy v. Banker*, 170 Mass. 266, 49 N. E. 308, 39 L. R. A. 508.) Neither at common law nor by the general principles of equity was a man entitled, at least in the absence of actual fraud, to protection in the exclusive use of a label for goods, unless it were one which he was using to distinguish some visible commodity owned or traded in by him. This was equally

true of an association of men. When, therefore, a voluntary association of workmen calling itself the "Cigar Makers' International Union of America" adopted a label for use on cigar boxes by manufacturers employing its members to make cigars, announcing that the cigars within were "made by a first-class workman, a member of the Cigar Makers' International Union of America, an organization opposed to inferior, rat-shop, cooly, prison, or filthy tenement-house workmanship," it was held by the courts that its fraudulent imitation could not be enjoined at the suit of a member of the association, neither he nor it being a cigar manufacturer. (*Weener v. Brayton*, 152 Mass. 101, 25 N. E. 46, 8 L. R. A. 640.) In a suit by a member of that association who was a cigar manufacturer, an injunction was awarded against a defendant guilty of actual fraud. (*Carson v. Ury* (C. C.) 39 Fed. 777, 5 L. R. A. 614.) Under Gen. St. 1902, section 4907, a label of such a kind became the proper subject of equitable protection, and any member of the association owning it (although neither he nor the association might be a manufacturer or owner of the goods to which it was attached, nor a dealer in them) was invested with a right of action. But the label on which the plaintiff relies in this action is one of a very different character. Instead of announcing that the hat to which it may be affixed has been manufactured by a member or members of the United Hatters of North America, if it announces anything as to its origin, it is that it was manufactured by the association itself. It was not, therefore, such a label as can support his action. His complaint should have been held to be insufficient.

DECISIONS UNDER COMMON LAW.

BOYCOTT—INJUNCTION—VIOLATION—EVIDENCE—*Huttig Sash and Door Company v. Fuelle et al.*, *United States Circuit Court, Eastern District of Missouri, Eastern Division*, 143 *Federal Reporter*, page 363.—The Huttig Sash and Door Company was a corporation in the city of St. Louis, engaged in the manufacture of woodwork for interior furnishings of houses, and had employed a considerable number of men, some of whom were members of labor unions, while others were not. Fuelle and others, defendants in the present case, were members of the Carpenters' District Council of St. Louis, and business agents and representatives of the United Brotherhood of Carpenters and Joiners. The effort was made by the unions to compel all woodworking firms in the city and county of St. Louis to unionize their shops, those that refused to do so being classed as unfair and notices to that effect distributed.

Contractors were informed that unless they restricted their dealings to the so-called fair shops, the union men in their service would be called off, and contracts were entered into with a number of contractors and builders by which they agreed to purchase materials of indicated "fair" establishments only. The Huttig Company refused to unionize their factory, and secured a temporary restraining order enjoining the defendants from boycotting it, and from giving

notice, verbally or written, either in person or thru the agency of others, to any person, firm, or corporation to decline to purchase materials of any sort from it, under threats that if such purchases were made they would cause the employees of the persons thus notified to withdraw from service. Interference with the employees of such contractors was also enjoined, together with other modes of enforcing the boycott.

On complaint that the injunction was being disregarded, a master in chancery was instructed to take testimony, and report facts and conclusions. By this means it was ascertained that the defendants had procured one Bohnen to come from New York to aid in unionizing shops; and that, beginning with August, 1905, lists were regularly issued showing what establishments were fair, and urging contractors to avoid trouble by patronizing only the enumerated establishments. Solicitations of contracts, and threats of difficulty unless they were signed, were shown to have continued, all of which was construed by the master in chancery as being in violation of the injunction. Judge Trieber, speaking for the United States circuit court, approved this finding, as appears from the following quotation from his opinion:

The granting of the restraining order, and thereafter the refusal of the court to dissolve it, were judicial determinations that the concerted action of this organization in attempting to compel manufacturers to "unionize" their business, and to effect such purpose by sending out circulars threatening parties who purchase the products of complainant with strikes, is unlawful and should be enjoined. As long as the injunction is in force, it is the duty of everyone to obey it implicitly, and any violation thereof by direct or indirect methods is a violation of the order of the court, which must be promptly put an end to, or it will bring the courts into contempt. These principles of law are elementary and require no citation of authorities. What would be the object of appealing to the courts for redress if its orders could, without fear of punishment, be disregarded? It is a mistaken idea to suppose that parties can resort to subterfuges and thereby successfully evade the orders of a court of justice.

As found by the master, as well as the court, defendants, for more than fifteen months after the granting of the restraining order, abstained from sending out any circulars threatening contractors and builders who should use materials bought from mills not on these lists and therefore to be classed as "unfair to labor" with strikes or refusals on the part of its members to handle such material. This compliance and obedience to the order of the court shows conclusively that the defendants understood and knew the meaning and object of the restraining order. Evidently some of the members of the council were dissatisfied with this condition, but, instead of appealing to the court for a modification of its order, or appealing to a higher court, which, under the acts of Congress, might have been done without waiting for a final decree, and upon such appeal could have secured a speedy hearing, as the act specially provides that such appeals "shall take precedence in the appellate court" (Act Feb. 18, 1895, c. 96,

28 Stat., 666, [U. S. Comp. St. 1901, p. 550]), they applied to the chief officers of their organization for aid and advice to enable them to carry out the objects which this court had restrained them from seeking to accomplish. It was for that purpose that Bohnen, one of the national organizers, came from New York to St. Louis in June, 1905. After remaining a few days he left the city, returning in July, and almost immediately thereafter the August booklet was circulated among the contractors and builders of St. Louis. No one will contend for a moment that these booklets were not for all practical purposes the same as the circulars sent out by the defendants prior to the institution of this action, and the circulation of which was restrained by the court. These booklets contained a list of the firms and dealers who were working under an agreement with the district council and a notice that any material not constructed under strict union conditions would not be handled by members of that union. As the lists in these booklets comprise all the firms whose materials may be handled without danger of a strike, it follows as of course that all firms engaged in the manufacture of these articles in St. Louis whose names are not therein mentioned are "unfair," and that their products will not be handled by union artisans.

All of the respondents participated, not only in publishing and circulating these booklets, but in attempting to induce contractors and builders to comply with their requests by entering into solemn contracts not to use any material from any but union firms, which, of course, excluded complainant, as its name did not appear on any of the lists.

The only defense attempted is that verbal notice was always given by the respondents to the contractors and builders that, owing to the injunction issued in this cause, complainant was not included among the "unfair" firms, and dealings with it would not be punished with a refusal to handle its material by union men. But the evidence establishes beyond a reasonable doubt that this fact was never mentioned to any contractor or builder unless he made special inquiry on the subject. Is it reasonable to suppose that every one of the several hundred contractors, builders, owners, and architects to whom these booklets were sent would make such inquiry about this particular firm, when there are many others engaged in the same business whose names did not appear on the council's lists and for this reason are supposed to be "unfair?" If any of the contractors, builders, architects, or owners to whom these booklets were sent had been advised that complainant was not included, without their making special inquiry on the subject, it would have been an easy matter to have produced them as witnesses. If the intention of respondents was to obey the mandate of the court—not only its letter, but its spirit—it would have been a very easy matter to have inserted the facts relating to complainant in their circulars or booklets. Their failure to do so must satisfy any reasonable person that the respondents violated the order of the court, and did it after calm and due deliberation.

For these reasons, the findings of the master that all of the respondents are guilty of violating the restraining order issued in this case must be affirmed.

LABOR ORGANIZATIONS—BOYCOTT—LAWFUL PERSUASION—INJUNCTION—*Bender v. Local Union No. 118, Baker and Confectionery Workers' Union, et al., Supreme Court of the District of Columbia, 34 Washington Law Reporter, page 574.*—This case was before the court on the complaint of John Bender, a baker, who sought to secure an injunction against the defendants to restrain them from interfering with his business, and particularly from instituting and maintaining a boycott against him. Bender had for some years previously conducted a union shop, but in April, 1905, decided to employ workmen without regard to their membership in labor organizations—in other words, to conduct an "open shop." Efforts were made to get Bender to come before a committee of the union, on the failure of which he was declared "unfair to organized labor," this action being indorsed by the Central Labor Union of the District of Columbia, one of the defendants in the case. Circulars were subsequently issued by the Bakery Workers' Union, calling on all friends of organized labor to withhold their patronage from Bender; also giving a partial list of his patrons and calling on their friends to refuse to deal with them so long as they should continue to buy goods of Bender. In this action the Central Labor Union claimed it had no part. Bender claimed that the distribution of the circulars and other forms of boycott were injurious to him and were unlawful, and asked for the injunction as stated, which was refused.

Judge Stafford, who announced the rulings of the court, first set forth in brief the contentions of the parties, and continued in part as follows:

It is evident from the answers themselves that there is here a combination between the defendants to accomplish a certain purpose. What is that purpose? The plaintiff says it is to compel him to employ only union men by injuring his business and by keeping before his eyes the prospect of ruin to his business as the alternative to his complying with the defendants' demands. He says this is the immediate purpose of the combination although it may have a remote and ultimate purpose in the expectation of improving the condition of union men. Consequently, he says the purpose is unlawful. On the other hand, the defendants say that such is not their purpose. They fail, however, to state what the purpose of the combination is. They assert their right to combine to divert patronage from the plaintiff to the friends of organized labor, but they nowhere state what the object and purpose is. What can it be except to demonstrate to the plaintiff that he can not conduct a profitable business with nonunion help and thereby compel him to employ union help instead? No other rational explanation of the conduct of the defendants can be found.

The plaintiff had an acknowledged right to employ nonunion men if he chose. The defendants are attempting to compel him to give up that right and submit to employ only union men. Is that a lawful purpose? The interest which the defendants have in the question is that if only union men can be employed union men can insist on

higher wages than they could insist upon if nonunion men as well as union men could be employed. They have an interest to keep up the rate of wages. If one manufactures a certain brand of flour it will be for his interest to convince dealers in flour that they can not afford to be without his brand. It might even be for his interest to convince dealers in flour that they could not afford to deal in any other brand. If he could persuade all consumers of flour to buy only his brand he could compel dealers to buy only his brand for sale, however much the dealers might prefer to sell some other brand. Now, if instead of there being one controller of this brand there were several, and they should all combine to compel dealers in flour to buy only their brand, that would be a perfectly lawful purpose, provided they should accomplish it only by lawful means. For instance, they might call upon all who had occasion to purchase flour from the dealers to assist them by declining to purchase any other flour, and, if their appeal proved effectual, the end would be accomplished without transgressing the law. Now, if a union has labor to sell and wishes to compel employers of labor to use no other, why may it not lawfully entertain the purpose of compelling employers of labor to employ only union labor, provided it can accomplish its purpose by lawful means? For instance, why may it not call upon all who have occasion to purchase the products of labor to refuse to purchase the product of any other labor? If it can persuade the purchasing public not to purchase the product of any other labor it will certainly compel employers of labor to employ no other labor however much they may wish to do so. And how does labor in the instance now given differ from flour in the instance given a moment ago? What is there unlawful either in the purpose to be accomplished or in the means taken to accomplish it? The course of competition is full of instances of lawful compulsion. Men are being constantly compelled to do what they do not wish to do, and what they have a perfect right to refuse to do, because they find that they can not otherwise conduct their business to a profit. Now, when John Bender refused to employ the union on its terms, was there anything unlawful in the union calling upon the purchasing public to refuse to purchase the product of any labor except that of the union? The whole effect of the appeal depended on the good will of the public. Was it anything more than calling public opinion to its aid? Up to the point which we have now reached there was no intimidation. There was no threat, unless it be a "threat" to refuse to bestow patronage and to call upon one's friends to do the like by way of assisting the one who makes the appeal. If the public believed that the cause of organized labor deserved encouragement it would probably respond. It might respond in order to secure the good will and patronage of those who made the appeal. If so, it would only be one of countless instances occurring daily where A patronizes B in the hope that B will patronize A.

But in the case at bar the union went a step further. It undertook to convince the plaintiff's customers that it would be more profitable for them to acquire or retain the patronage of union men and union sympathizers than to deal with the plaintiff. Accordingly, it called upon the public to refrain from dealing with the plaintiff's customers. This, of course, was directed to the accomplishment of the same purpose, namely, to compel the plaintiff to employ only union men; that

is, to convince him that his course in employing nonunion men would be commercially unprofitable. The purpose was to convince him that union men and union sympathizers were so numerous and so strongly attached to the cause of organized labor that his customers would leave him for those who were in sympathy with the union. What is there here beyond an appeal to the self-interest of the plaintiff and the self-interest of his customers? There is no attempt to coerce either unless it be "coercion" to convince one that his financial interest will not permit him to do what he desires to do. We sometimes hear it said that one in business has a right to have business flow to him without interruption, but that certainly can not be true in its broad and sweeping terms. It can only mean that he has a right to have it flow to him without unlawful interruption, and the question still remains what is unlawful. The principles governing the question may, perhaps, be more easily apprehended by simplifying the situation. Suppose A to be the baker, the manufacturer and employer. Suppose B to be his workman, and suppose him to have but one. Suppose C to be one who desires to be employed by A in place of B. Suppose D to be a customer of A, and suppose that A has only this one customer. Now, suppose that C, wishing to be employed by A in place of B, says to A: "If you will not employ me in place of B, I will buy none of your goods." Is there anything unlawful about that? If C is a labor union consisting of 20 men, is the principle different? Suppose further that C says to D: "If you continue to trade with A, I shall withdraw my patronage from you." And suppose C does this knowing that D is A's only customer, and that the result will be financial ruin to A, and that the purpose of C is thereby to bring A to terms, and compel him to employ C instead of B, has he not a right to do this? Are not just such transactions every day occurrences, and is there ever any question about their legality? In all such cases the party upon whom the pressure is brought to bear weighs the commercial advantage of the different courses of action, and decides according to his own interest. Such is the whole course of trade. Now, does it make any difference in principle that B, C, and D instead of being single individuals each represents a hundred individuals? The purpose to be accomplished not being in itself unlawful, the means used not being unlawful when employed by one person alone, does the transaction become unlawful by reason of the bare fact that instead of one person acting alone two or more persons are acting in concert? It is said that there is a power in numbers which does not exist in the individual, and that consequently the same thing may be unlawful when done by a combination which would be lawful when done by an individual, and that consequently it is the combination itself which constitutes the unlawful element. But is this quite correct? It is easy to see that a great number of persons acting together may give an appearance of force and power which would have the effect to intimidate when one person acting alone would not be able to intimidate. But in that case there is intimidation by force of numbers, and wherever there is intimidation the law is overstepped. But does it make any difference, where the purpose to be accomplished is legal and the means employed are legal, that many persons, instead of one, are seeking to accomplish the legal act by legal means?

It may be true that in the case at bar the defendants expected to accomplish their purpose of unionizing the plaintiff's shop by making it manifest to him that he must unionize it in order to make it a financial success. That was the means by which they expected to accomplish their purpose, but they had a legitimate personal motive for their action in the desire to secure employment for themselves and their fellow-members with whom they were making common cause. It can not be said that only those individual members of the union who might hope to be employed by the plaintiff had a proper motive in what was done. The union as a whole made contracts for its members and settled the terms of employment with employers, and each one of the members of the union had an interest in the terms upon which the plaintiff should employ members of the union. They were all acting together for their common interest.

Judge Stafford then referred to the lack of harmony in the various decisions examined by him and, continuing, said:

After all, it is a question of individual liberty. It is such a principle that the plaintiff invokes, and it is upon such a principle that the defendants rely for their defense. The plaintiff has a right to conduct his business in his own way without coercion, without intimidation, exactly as he shall conclude it is for his own interest to act. The defendants jointly and severally are entitled to the same privilege. They have a right to sell their labor to whom they will and to withhold it from whom they will. They have a right to patronize whom they will and to withhold their patronage from whom they will. It seems to the court that they have a right to call on their friends and sympathizers to withhold their patronage from one who refuses to employ them, their friends and sympathizers being left free to answer the appeal as they believe their own interests to dictate. So long as all parties concerned are left free to follow their own choice as they decide their self-interest dictates, it seems to the court that there has been no infringement upon the personal liberty of anyone. Apparently, the question here to be decided has not been passed upon in any reported case in this jurisdiction, and the authorities elsewhere being in conflict this court has felt at liberty to adopt the view which seems to it fundamentally correct. Entertaining these views, it will be necessary to refuse the temporary injunction upon the case made by the pleadings.

LABOR ORGANIZATIONS—CONSPIRACY—COERCION—INTERFERENCE WITH PROPERTY RIGHTS—INJUNCTION—DAMAGES—*Purvis et al. v. Local No. 500, United Brotherhood of Carpenters and Joiners et al., Supreme Court of Pennsylvania, 63 Atlantic Reporter, page 585.*—J. L. Purvis and L. O. Purvis, manufacturers of millwork for buildings, had procured from the court of common pleas of Butler County a decree of injunction and an award of \$1,770 damages against the labor union above named and others in privity therewith. The defendants appealed, with the result that the action of the court below was affirmed. The facts are not stated except as they appear in the

opinion or are indicated in the injunction. The injunction was in part as follows:

That the defendants (not including L. C. Wick) and each and every of them, their officers, committees, agents, employees, servants, members, associates, and all others that may act in concert with them, or by their direction, each and every one, be restrained and strictly enjoined from interfering and from combining, conspiring, or attempting to interfere, for the purpose of doing injury to plaintiffs in their business, with the sale or contract for sale by the plaintiffs of building materials by representing or causing to be represented in express or implied terms to any customer of the plaintiffs, or to any person or persons or corporation who might become customers of the plaintiffs, that such customers will suffer or are likely to suffer loss or trouble in their business for purchasing or continuing to purchase or contracting for the purchase of building materials from the plaintiffs; * * * or from sending out to any person or persons or corporation who are now customers or who may hereafter become or desire to become customers of the plaintiffs, through the mails, or delivering to them otherwise, any written or printed card, letter, circular, or other notice, stating that members of the United Brotherhood of Carpenters and Joiners will not handle or work millwork or materials coming from mills which fail to comply with regulations of the Carpenters' District Council and that the plaintiffs had failed to comply with an agreement of the Planing Mill Association of Western Pennsylvania with the Carpenters' District Council, or an agreement adopted by the Master Builders' Association and said council, and requesting such customers or prospective customers of the plaintiffs to have their millwork done by mills that operate under said agreement so that no controversy can arise on account of nonunion millwork, or from sending out to such customers or prospective customers of the plaintiffs any card, circular, or other notice of similar character or purpose, directly or indirectly, or from writing or sending through the mails or otherwise, any written or printed card, circular, letter, or other communication, conveying or intending to convey, to any customers or prospective customers of the plaintiffs that the plaintiffs are under the ban of local No. 500, United Brotherhood of Carpenters and Joiners of America, or the Carpenters' District Council of Pittsburgh, Allegheny, and Vicinity, United Brotherhood of Carpenters and Joiners of America, or other trade unions, or of similar import; * * * or from interfering and from combining, conspiring, or attempting to interfere, for said purpose, with the business of the plaintiffs, by the enforcement, under pain of penalties and forfeitures, of rule 7 of the working rules adopted for the government of local unions under the jurisdiction of the Carpenters' District Council of Pittsburgh, Allegheny, and Vicinity, United Brotherhood of Carpenters and Joiners of America, which provides that: "No member shall be allowed to work any material coming from any nonunion mill and shall comply with this rule when the local unions are so informed and instructed by the district council," or by other like coercive rules, the natural and necessary effect of which would be to deter the members of said trades unions or others from working upon buildings or other constructions to which the plaintiffs were furnishing materials, or contractors, builders, or owners of said buildings or other constructions, or others from purchasing materials from the

plaintiffs; or from interfering, combining, conspiring, or attempting to interfere with the business of the plaintiffs for the purpose of injuring them in their business, by the enforcement of fines or forfeitures, suspension or expulsion from membership in any of the locals within the jurisdiction of the Carpenters' District Council of Pittsburg, Allegheny, and Vicinity, United Brotherhood of Carpenters and Joiners of America, for failure to observe rule 7 of the working rules adopted for the government of local unions under the jurisdiction of said Carpenters' District Council of Pittsburg, Allegheny, and Vicinity, United Brotherhood of Carpenters and Joiners of America, or for failure to observe any of the rules adopted and in force in that union, or that may hereafter be adopted, which would by coercion of said members interfere with the business of the plaintiffs, or from otherwise restraining, coercing, or intimidating any one or more of the members of said union for said purpose from working for any contractors, builders, owners, or other persons because they are doing or desire to do business with the plaintiffs; or from interfering and from combining, conspiring, or attempting to interfere with the business of the plaintiffs by the issue of union labels to any mill within the jurisdiction of the Carpenters' District Council of Pittsburg, Allegheny, and Vicinity, United Brotherhood of Carpenters and Joiners of America; such issue of labels being made for the purpose of interfering with the business of the plaintiffs.

The opinion of the supreme court was delivered by Judge Brown, from whose remarks the following is quoted:

The zeal of counsel may account for, but can hardly excuse, the statement in appellants' paper book of the questions involved on this appeal. They are there stated to be: "Is the dissemination by means of printed notices by a lawfully constituted lodge of union laborers to its members and employers of labor, of its adopted rules by virtue of its constitution forbidding its members to work nonunion material, an unlawful conspiracy? Is it lawful by peaceful means to make effective such rules?" From an examination of the averments of plaintiffs' bill, the ample proofs submitted in support of them, and of the facts found by the court below, it is most manifest that the only question before us is whether the appellants were properly enjoined from injuring and destroying the business of the appellees, in pursuance of a conspiracy to do so, as a penalty for their refusal to unionize their mill. This would mean to the appellees, as they aver, that they would be compelled to employ only union workmen and to yield their free and unrestricted right to select their own employees in the conduct of their business; that they would be compelled to submit themselves to the control of the union, and to put themselves within its power to dictate to them the number of hours to constitute a day's work in their mill, the compensation to be paid therefor, the time of payment thereof, and the selection of their employees. It would be a recognition of the power of the agents of the union to practically control their business.

The opinion of the court below is learned and exhaustive, and upon it the decree might well be affirmed. The briefs on each side are most elaborate; but, after all, the question involved is a very simple one and calls for no lengthy discussion by us. The rights of mechanics and laborers, and of unions and individuals, are involved in

innumerable cases, are not affected by the decree, and need not, therefore, be considered here. The question is the unlawfulness of the conspiracy of the appellants to injure and destroy the property of others, if their demands as to the employment of workmen are not complied with. The question is not as to the unlawfulness of the demands which they make, but is as to their conduct upon learning that these demands are ignored by the appellees. The demands in themselves can do no harm to the latter; it results from the means employed to coerce compliance with them. The appellants contend that they seek only to persuade, and not to coerce; but their means of persuasion are the destruction of property of those whom they would persuade. As well might it be said that the sight of the club or gun of the highwayman without actual violence simply persuades. No violence was used by the appellants, and it does not appear that any was contemplated or threatened; but coercion may be accomplished without threats or violence, and the attempt to so accomplish it was made in this case.

After reciting the material facts found, the court below thus summarizes the situation: "These things all point to a combined purpose on the part of Local No. 500 and the District Council to compel the plaintiffs to unionize their mill by working injury to their business. To accomplish this the whole power of the union was brought to bear upon them, both in the Pittsburg district and the home community. The members of Local No. 500 who were found working material from their mill were coerced by the compelling power of the union to quit work on pain of trial, fine, or expulsion, with its attendant annoyances and possible ostracism, in case of their refusal. By the same power, owners, former customers, and contractors were coerced through the urgency of their circumstances to withhold their patronage, while through the conditions thus created the public was deterred, as the evidence indicates, from placing orders with the plaintiffs, which would otherwise have gone to them. Along these converging ways the whole power of the union was brought to bear upon the plaintiffs to coerce them into submission. The right of each—employer and employee—is an absolute one, inherent and indefeasible, of which neither can be deprived, not even by the legislature itself. A person's business is property, entitled under the Constitution to protection from unlawful interference. Every person has a right, as between his fellow-citizens and himself, to carry on his business within legal limits, according to his own discretion and choice, with any means which are safe and healthful, and to employ therein such persons as he may select. (*Barr v. Essex Trades Council*, 53 N. J. Eq. 101, 30 Atl. 881.) With the absolute right of the appellees in their property, the appellants assumed to interfere, and would injure, if not destroy it, if their demands are not complied with. This no court will tolerate.

As already stated, of the demands in themselves the appellees could not be heard to complain. The appellants contend that they are made for the benefit of the members of their union. This is undoubtedly so, and, if the injury resulting from a disregard of them is confined to its members, they alone can complain; and even if it incidentally results to outsiders, through compliance by the members of the union with its rules and orders, there may be no

for it. An agreement by those to be benefited by it, that they will themselves observe its terms in accepting employment, even if employers be incidentally embarrassed thereby, can occasion no injury to employers which the law will recognize, for workmen, whether bound by a compact among themselves or not, have the absolute right to give their services to whom they please, or to withhold them from whom they please, without responsibility for consequences to employers or to anyone else. But this is not the case when the primary purpose is to unlawfully coerce others that, as a result of the coercion, benefits may accrue to those who coerce. The attempt to coerce by unlawful means, by conspiring to injure and destroy property, is in itself an unlawful act, no matter what end is to be accomplished, and the concern of the law is only for the protection of those who are to be wronged. Benefits which it is alleged will result to the wrongdoers can not be considered without sanctioning the wrong, without justifying the unlawful means for the accomplishment of an end. By no specious reasoning can the conduct of the appellants be construed into anything else than a conspiracy to perpetrate wrong for the accomplishment of beneficial results to themselves.

Judge Brown then quoted from the opinion of the judge in the court below, as follows:

"It is unnecessary to multiply authorities to establish the unlawfulness of defendants' purpose as expressed by their agents and indicated by their acts. In reaching this conclusion I do not ignore, but gladly recognize, the right of workmen and others to combine for the worthy purpose of bettering their condition. In their efforts to attain this end they may inflict more or less inconvenience and damage on others. But these results should be incidental damage and inconvenience consequent on the operation of general rules, lawful in themselves, rather than those which follow a specific intent and immediate purpose of injury to others in order that good may ultimately come to themselves. The doctrine that the end sanctifies the means has no place in a condition of society where law prevails. Even a good purpose must abide its time and follow the path marked out by law rather than hasten its accomplishment by ignoring the equal rights of others. A patient recognition of these safeguards which the law has thrown about every lawful possession, and of those limitations and restraints within which every lawful endeavor must be advanced, is the only sure way of helping on any worthy cause.

"Turning from a consideration of the nature of the purpose of defendants as indicated by their words and deeds, I desire to briefly consider the means used to effect that purpose. On part of plaintiffs it is alleged that the means used are a boycott of their business. The defendants contend that their methods were persuasive and were not accompanied with violence, threats, or intimidation. No violence was used, nor does any seem to have been contemplated or threatened. But acts may be coercive in character without threats or commission of violence or personal injury. When the District Council with its 7,000 members in the Pittsburgh district gave notice to practically all the building contractors of that district that the plaintiffs refused to run their mill in accordance with union rules,

and calling attention to the working rule which forbids union workmen to work material from any nonunion mill, the contractors understood what the request not to patronize plaintiffs' mill meant. When the members of Local No. 500, who were willingly working material from plaintiffs' mill, were visited by the business agent of the union, who called them off, they doubtless knew that it meant trial, fine, or expulsion and ostracism if they continued to work. When the owner of the Central Hotel was required, in the urgency of his situation, to sign a contract with the business agent of the union not to purchase any more material from plaintiffs as the condition of having work continued on his building, it can scarcely be said that his freedom of action was not interfered with; when the business agents of the District Council declared that they had come to Butler prepared to drive Purvis & Co. into the union, when they stated to plaintiffs there was going to be trouble if the mill was not unionized, and gave them to understand that they must unionize their mill or quit business, all parties well understood what that meant. In all these things the attitude of the defendants was threatening and coercive rather than persuasive."

Concluding, Judge Brown said:

In attempting to justify their conduct the appellants allege authority for it in the act of June 16, 1891 (P. L. 300). While that act provides that they may devise and adopt ways and means to make rules, regulations, by-laws, and resolutions of their order effective, it sanctions no rules, regulations, by-laws, or resolutions to commit wrong, and, if it attempted to do so by authorizing the appellants to interfere with the absolute rights of the appellees, the legislation would be a dead letter, for the legislature can not abolish the declaration of rights. To do that the whole people of the Commonwealth must be directly consulted, and they must give assent. (*Erdman v. Mitchell*, supra.)

In assessing the damages sustained by the plaintiffs and directing their payment no error was committed by the court. All of the assignments [of error] are dismissed, and the decree is affirmed at the cost of the appellants.

LABOR ORGANIZATIONS—OBLIGATIONS OF MEMBERS—SUSPENSION REINSTATEMENT—DAMAGES—PUBLIC DUTIES—*Schneider et al. v. Local Union No. 60, United Association of Journeymen Plumbers, Gas Fitters, Steam Fitters, and Steam Fitters' Helpers of the United States and Canada, Supreme Court of Louisiana, 40 Southern Reporter, page 700.* The civil district court of the Parish of Orleans had awarded a judgment of damages against the union named above, together with an injunction restraining the union from interfering with the employment of the plaintiffs at their trade, and directing their reinstatement as members of the union, with a remission of their fines. From this judgment an appeal was taken, which resulted in its affirmance in all points.

The legislature of Louisiana had past a law (act No. 194, Acts of 1902) providing for a board of examiners of plumbers for cities hav-

ing a population of 30,000 or more. This board was to be appointed by the mayor, and at least two of its members were to be journeymen plumbers. The duty of selecting a plumbing inspector for the city was, in the present instance, left with this board. Local Union No. 60 met in July, 1902, soon after the law became effective, and by secret ballot selected certain nominees for each of the positions to be filled in the city of New Orleans, submitting the same to the mayor and council of the city. The latter were not willing to approve the appointments suggested, however, and selected two other members as examiners. These members declined to serve, and subsequently, either by request of the mayor or on its own motion, the union forwarded its roster, omitting the four members indicated above, that the mayor might make his own choice therefrom. This the mayor did, selecting Stevens Schneider and Edward Schekeler, the plaintiffs in this case, as the two journeymen members of the examining board. When the question of choosing an inspector came before the board neither Schneider nor Schekeler voted for McGilvray, the nominee of the union for that position, altho formally instructed by the union to do so. The union then imposed upon each of the plaintiffs a fine of \$25 and, contingently, of \$150 if they should not vote for McGilvray. A like fine, besides expulsion from the union, was threatened against any other member than McGilvray who should accept the place of inspector.

The plaintiffs continued to ignore these acts and the union ordered their suspension, and that a penalty be assessed against any member of the union who should work on the same job with the plaintiffs. This action led to the discharge of Schneider and Schekeler by their employers and continuous loss of employment. The union was not united in this course, but efforts at a rehearing as well as an appeal by the plaintiffs to the United Association failed, and the men brought suit for damages. The loss of wages, the value of membership in the union, and the injury to feelings and reputation which they had suffered were alleged as injuries for which damages were sought. An injunction against the continuance of this boycott, remission of the fines assessed, and restoration to membership were also prayed for.

Judge Monroe stated the above facts, and said:

In addition to the facts thus stated it may be said, upon the authority of their constitution, by-laws, etc., that the declared purpose of the members of the union in effecting their organization is to protect themselves from unjust and injurious competition, and to secure, through the power of organization a steady demand and fair compensation for their labor and a position in society to which as wealth producers and citizens they are entitled. The pledge required of all initiates by the plaintiffs, is as follows:

association, do truly
obedience to

all laws and legal summons that may be sent, said, or handed to me. I will not do any act in any way prejudicial to the best interest of this association, but will at all times endeavor to promote its prosperity and usefulness. I will at all times assist members of this association to the extent of my ability, defend them when unjustly treated or slandered, and cultivate for each and every member the warmest friendship and brotherly love. I will assist unfortunate or distressed members to procure employment and to secure just remuneration. I do further promise that I will never reveal any of the signs or workings of this association that may be now or hereafter confided to me, except in a lawful and authorized manner. I take this obligation voluntarily, without any mental reservation, and bind myself until death or honorable withdrawal, under the penalty of the scorn due to moral perjury and violated honor, as one unworthy of trust or assistance.

Upon the facts thus stated (and possibly a few others which may be hereafter referred to), the judge *a quo* gave judgment in favor of the plaintiffs, respectively, and against the defendants, Local Union No. 60 and various named officers of said association who participated in the action complained of, maintaining the preliminary injunction which had been issued, ordering that the plaintiffs be reinstated in said Local Union No. 60, and the fines imposed upon them set aside, and condemning said defendants in solido, in favor of the plaintiff Schekeler in the sum of \$482, with interest from the rendition of the judgment, and in favor of the plaintiff Schneider in the sum of \$466, with interest. And from the judgment so rendered the defendants have appealed.

The opinion of the court was then given, from which the following is quoted:

The obligation which initiates of Local Union No. 60 are required to take is to be construed with reference to the declared purposes of the organization, and is binding on the initiate only in so far as those purposes are lawful and are to be attained by lawful means. When the union attempts the accomplishment of an object which is foreign to those purposes, or attempts the accomplishment of those purposes by unlawful means, the initiate may properly say: "I entered into no such contract." The union's rules of order specifically provide that "partizan politics or sectarian discussion shall not be permitted in the meetings under any circumstances." The introduction of a resolution committing the organization to the support of a particular political party or a particular dogma of religion would therefore be a violation of a fundamental law of the union, as construed by the union, and its adoption would impose no obligation on its members, and it must be read into those rules that the introduction of a resolution which is violative of the fundamental law of the land has no better foundation and its passage no greater effect. "The courts will not enforce an agreement the object of which is forbidden by law or is opposed to the policy of the law. * * * The following are the leading classes of agreements contrary to the policy of the law: Agreements which tend to injure the public service. Of this character is an agreement to use one's influence to secure the election or appointment of a person to a public office. [Cases cited.]" *Principles of Contracts* (Benjamin), pp. 89, 90.

This elementary doctrine is more fully stated in the brief of the counsel for the plaintiffs in the form of excerpts from what we take to be a recent work on Public Policy (Greenhood), as follows:

"Any contract which contemplates conduct which will amount to an imposition upon a public officer in the exercise of his discretion is void. * * * Any contract by one acting in a representative capacity, which restricts the free exercise of a discretion vested in him for the public good, is void. * * * Any contract to appoint to a public office, or involving the sale of a public office, or quasi public office, or to do anything in consideration of the promisee exchanging offices, or securing an office for the promisor, or recommending him for such office, or resigning any office, is void. * * * It is the duty of the officer, having a power of appointment, to make the best appointment in his power, at the time when he makes the appointment. The public have a right to demand this, and it is against public policy that he should be deprived of the exercise of his best judgment by a contract previously made."

Referring to Greenhood on Public Policy, pp. 336-339, 387.

If, therefore, the appointment of McGilvray, rather than of some other and perhaps more competent man, to the position of inspector, could be considered as furthering the purposes for which the defendant herein was established, nevertheless the attempt to secure that appointment, by threatening and imposing fine and suspension, in their capacity as members of the union, upon public officials charged with such appointment, was a violation of law; and this, whether those officials, as members of the union, had committed themselves to McGilvray's candidacy or not. But we are unable to concur in the view, relied on by the learned counsel for the defendant, that the plaintiffs had so committed themselves.

We infer that, as the ultimate result of its action, in July, 1902, the union suggested the appointment of Correjollas and Robinson as members of the board of examiners, and the record shows that the mayor declined to appoint them and tendered the appointments to Patterson and Ybos, who were compelled by the union to decline them. Some seven or eight months later (in March, 1903) the union sent to the mayor its roster in order to enable him to select from it, for himself, the two appointees for whom he was looking. * * * It is quite certain that the union understood that the mayor would make his own selection, and that all he needed from it was the names of its members. Under these circumstances, there was nothing for the union to do but send a correct roster, or none, since to have sent an incorrect one would have been to have practiced a fraud. The plaintiffs were therefore under no obligation to the union in that connection, as their names were on the roster as a matter of right, and not of favor, and the union in sending the roster did no more for them than it did for those members, constituting the large majority, whom the mayor did not select and could not have selected. It seems to us, then, to be illogical to argue that the plaintiffs are in the attitude of having secured their appointments as members of the board by holding out that, if appointed, they would vote for McGilvray for inspector, since it is not pretended that they so held out to the mayor, who appointed them, and the union, to whom the holding out is (erroneously, as we think), said to have been made, neither appointed them nor controlled the appointments.

Defendants' counsel earnestly contends that plaintiffs should have exhausted their remedy within the organization of which they are members. Conceding, *arguendo*, that the general rule to that effect is applicable to a case in which the organization is acting in violation not only of the law of its being, but of the law of the State, we are nevertheless of the opinion that the plaintiffs have brought themselves fairly within that rule. We find no provision for the trial of such matters as this either in the constitution or by-laws of Local Union No. 60, nor in those of the United Association, and the efforts of the plaintiffs to induce those organizations to make the necessary provision and in some way give them a trial resulted in nothing but futile correspondence and vexatious delay, with no prospect of relief from a situation which, to men dependent for themselves and their families upon their daily earnings, had become little short of desperate.

As to the damages, counsel for defendant, calculating them from the evidence, reaches the conclusion that Schneider lost in wages \$96, and Schekeler \$192, and, as the judgment appealed from awards the one defendant a total of \$466, with interest from its rendition, and the other \$482, with interest, it is said that the judgment should be amended in that respect.

The amounts thus awarded represent, however, not only the damages sustained by reason of loss of wages, but also those resulting from mental suffering and injury to reputation, and likewise included \$200 awarded to each plaintiff as punitive damages. We agree with the trial judge that his estimates are conservative, and find no sufficient reason for reducing the totals as thus allowed.

It is therefore ordered, adjudged, and decreed that the judgment rendered in the consolidated cases of *Stevens Schneider v. Local Union No. 60, United Association Journeymen Plumbers', etc., et al. and Edward Schekeler v. Same Defendants*, and herein appealed from, be, and the same is hereby affirmed, at the cost of the defendants.

LAWS OF VARIOUS STATES RELATING TO LABOR, ENACTED SINCE JANUARY 1, 1904.

[The Tenth Special Report of this Bureau contains all laws of the various States and Territories and of the United States relating to labor, in force January 1, 1904. Later enactments are reproduced in successive issues of the Bulletin from time to time as published, beginning with Bulletin No. 57, the issue of March, 1905. In the cumulative index, page 919 et seq., are indexed all laws found in the Tenth Special Report, together with those enacted in 1904 and 1905, and published in Bulletin Nos. 57 to 67, inclusive.]

WASHINGTON.

ACTS OF 1905.

CHAPTER 66.—*Examination, etc., of plumbers.*^(a)

SECTION 1. Any person, firm or corporation that is now or hereafter may be engaged in the business of plumbing in any city having a population of ten thousand inhabitants or more, either as master plumber or as a journeyman plumber, shall secure and hold a license therefor in accordance with the provisions of this act, and it shall be unlawful for any person to work at the trade of plumbing or to carry on the business of plumbing in any such city without complying with the provisions of this act.

SEC. 2. Within thirty days after this act shall take effect the governor shall appoint a board of plumbing examiners consisting of three members. The members of said board shall be practical plumbers well versed in modern sanitary plumbing, sanitation and sewerage. The board shall consist of two master plumbers and one journeyman plumber, and the members of said board shall serve for a period of three years each from the date of their appointment: *Provided however*, The first board shall serve as follows: One member for one year, one member for two years, and one member for three years, and the governor in making the appointment shall designate the time that each member constituting the first board shall serve. Thereafter upon the expiration of the term of office of each member of the board, or when a vacancy occurs, the governor shall make a new appointment for the full period of three years. The members of said board shall be entitled to a compensation of five dollars per diem each, for each and every day while actually engaged in the work of the board, together with their traveling expenses from city to city on business connected with their offices; the compensation, however, to be paid from the revenues realized under the provisions of this act, but not otherwise. The time and method of payment of such compensation shall be in accordance with the rules and regulations established by said board of plumbing examiners. Said board of plumbing examiners shall meet once each year in each of said cities, and notice of such meeting shall be given by publishing in each of said cities, in a daily newspaper published therein, a statement of the time and place of holding such meeting, at least ten days prior to the holding of such meeting. Said board may call special meetings in any of said cities for the purpose of holding examinations or for other business purposes as hereinafter provided whenever in its judgment it is deemed advisable. At all regular and special meetings of said board as herein provided, it shall be the duty of said board to examine each applicant for a license as provided for by this act, to determine his qualifications and fitness for carrying on his business of master plumber or journeyman plumber, and if the applicant successfully pass the examination as prescribed by the said board, then a license shall be issued to such applicant for such license, authorizing him to engage in the business and occupation of a master plumber or journeyman plumber, as the case may be, which license, when issued, shall authorize the holder thereof to carry on the business of master plumber or journeyman plumber in any of said cities.

SEC. 3. Any person, firm or corporation desiring to engage in or work at the business of plumbing either as a master plumber or as a journeyman plumber in any of said cities, shall apply to the said board of plumbing examiners by filing a written application with the secretary of the board, stating his place of residence, age, experience

^a For decision declaring this law unconstitutional, see pp. 875-877, above.

and the place where he has acquired his experience, and shall at such time and place as may be designated by said board, as herein provided for, be examined as to his qualifications for a license. In the case of a firm or corporation, the examination and issuing of a license to any one member of the firm or to the manager of the corporation shall satisfy the requirements of this act as to master plumbers, but not as to journeyman plumbers: *Provided however*, That no person shall do the work of a master plumber unless licensed as provided in this act: *Provided further*, That any duly licensed journeyman plumber may engage in the business of a master plumber without further examination, upon payment of the fee for a master plumber's license and complying with the other provisions of this act with respect to master plumbers.

SEC. 4. Said board of plumbing examiners shall within thirty days after the appointment of the members thereof meet and organize and elect a president, secretary and treasurer, and make rules and regulations that are just and reasonable and fair in the matter of time, place and method of examining applicants desiring to engage in or to work at the business or trade of plumbing in any of said cities, and for the issuing of licenses and granting of temporary permits from time of the filing of the application until the applicant has an opportunity to submit to the examination to be prescribed by the said board. Said board shall examine all applicants as to their knowledge of and experience in plumbing, house draining and ventilation, and all other subjects that in its judgment are deemed necessary and requisite to test the fitness, knowledge and experience of the applicant, and if the applicant has sufficient knowledge and experience in the matters inquired about and in the opinion of said board is competent to engage in such work or business or trade, said board shall thereupon issue a license to the applicant which shall authorize and permit him to engage in the business or trade specified in said license in any of the said cities, for the time specified in said license.

SEC. 5. No applicant for a master plumber's license shall be entitled to submit to the examination prescribed by the said board of plumbing examiners until he shall have deposited with the treasurer of said board the sum of ten dollars, and no applicant for a journeyman plumber's license shall be entitled to submit to the examination to be prescribed by said board until he shall have deposited with the treasurer of said board the sum of two dollars and fifty cents; each license when issued shall expire one year after the date of its issuance and shall have no force or effect after the expiration of one year from the date of its issuance. Any license, however, issued to a master plumber or a journeyman plumber, may be renewed annually without examination at any time prior to its expiration, by a written request for its renewal directed to the secretary of said board and the payment of the sum of ten dollars for a renewal of a master plumber's license or the sum of two dollars and fifty cents for the renewal of a journeyman plumber's license, and any such renewal shall also be for the period of one year.

SEC. 6. Nothing in this act shall prohibit any person from working as an apprentice in said trade of plumbing with a plumber duly licensed by said board as herein provided for, and under such rules and regulations as may be prescribed from time to time by said board of plumbing examiners: *Provided*, The name and residence of each apprentice and the name and residence of their employers shall be duly filed with said board, and a record in a suitable book to be provided by said board shall be kept by said board, showing the names and residences of such apprentices.

SEC. 7. Sufficient of the moneys derived from license fees, examination fees and the renewal of licenses, under the provisions of this act, shall be used by said board to defray the expenses of holding examinations in connection with the carrying out of the provisions of this act, including their own compensation and traveling expenses, and any surplus remaining shall be turned over to the State treasurer on the first day of July, 1907, and annually thereafter.

SEC. 8. The license and permit granted as herein provided may be at any time revoked for incompetency, dereliction of duty or other sufficient cause, after a full and fair hearing by said board.

SEC. 9. A majority of said board of plumbing examiners shall constitute a quorum for the purpose of transacting any and all business that may come before the board.

SEC. 10. All competent master plumbers and competent journeyman plumbers now engaged in the business or actually and regularly working at the trade of plumbing shall be entitled to a license to be issued by said board of plumbing examiners immediately after its organization as provided for by this act, without submitting or being required to submit to any examination whatsoever, upon the payment by each of the applicants for such license of the sum of ten dollars in the case of a master plumber and two dollars and fifty cents in the case of a journeyman plumber, and such license when issued shall be renewed from time to time annually as hereinbefore provided.

SEC. 11. If any section or provisions of this act be held by the courts of this State to be unconstitutional, it is hereby declared to be the legislative intent that the remaining sections or provisions of this act shall remain in full force and effect, to the same extent as though such unconstitutional portion had not been enacted, and the declaring of one section or provision void shall in no way affect the validity of the sections or provisions remaining.

SEC. 12. Any person violating any of the provisions of this act shall be deemed guilty of a misdemeanor and shall be punished by a fine of not more than fifty dollars or less than ten dollars for each and every violation thereof.

SEC. 13. Any person making an application for a license as herein provided for who deems himself aggrieved by reason of the refusal of said board of plumbing examiners to grant a license to him shall have the right to appeal from the decision of said board to the superior court of the county in which he shall submit to his examination for a license.

Approved by the governor March 4, 1905.

CHAPTER 84.—*Inspection of factories.*

SECTION 1. Any person, firm, corporation or association operating a factory, mill or workshop where machinery is used shall provide and maintain in use, belt shifters or other mechanical contrivances for the purpose of throwing on or off belts on pulleys while running, where the same are practicable with due regard to the nature and purpose of said belts and the dangers to employees therefrom; also reasonable safeguards for all vats, pans, trimmers, cut-off, gang edger, and other saws, planers, cogs, gearings, belting, shafting, coupling, set screw, live rollers, conveyors, mangles in laundries and machinery of other or similar description, which it is practicable to guard, and which can be effectively guarded with due regard to the ordinary use of such machinery and appliances, and the dangers to employees therefrom, and with which the employees of any such factory, mill or workshop are liable to come in contact while in the performance of their duties; and if any machine or any part thereof, is in a defective condition, and its operation would be extra hazardous because of such defect, or if any machine is not safeguarded as provided in this act, the use thereof is prohibited, and a notice to that effect shall be attached thereto by the employer immediately on receiving notice of such defect or lack of safeguard, and such notice shall not be removed until said defect has been remedied or the machine safeguarded as herein provided.

SEC. 2. Every factory, mill or workshop where machinery is used and manual labor is exercised by the way of trade for the purposes of gain within an enclosed room (private houses in which the employees live, excepted) shall be provided in each workroom thereof with good and sufficient ventilation and kept in a cleanly and sanitary state, and shall be so ventilated as to render harmless, so far as practicable, all gases, vapors, dust or other impurities, generated in the course of the manufacturing or laboring processes carried on therein; and if in any factory, mill or workshop, any process is carried on in any inclosed room thereof, by which dust is generated and inhaled to an injurious extent by the persons employed therein, conveyors, receptacles or exhaust fans, or other mechanical means, shall be provided and maintained for the purpose of carrying off or receiving and collecting such dust.

SEC. 3. The openings of all hoistways, hatchways, elevators and wellholes and stairways in factories, mills, workshops, storehouses, warerooms or stores, shall be protected where practicable, by good and sufficient trapdoors, hatches, fences, gates or other safeguards, and all due diligence shall be used to keep all such means of protection closed, except when it is necessary to have the same open that the same may be used.

SEC. 4. It shall be the duty of the commissioner of labor, by himself or his duly appointed deputy, to examine as soon as may be after the passage of this act, and thereafter annually and from time to time, all factories, mills, workshops, storehouses, warerooms, stores and buildings and the machinery and appliances therein contained to which the provisions of this act are applicable for the purpose of determining whether they do conform to such provisions, and of granting or refusing certificates of approval, as hereinafter provided.

SEC. 5. Any person, firm, corporation or association carrying on a business to which the provisions of this act are applicable, shall have the right to make written request to said commissioner of labor to inspect any factory, mill or workshop, and the machinery therein used, and any storehouse, wareroom or store, which said applicant is operating, occupying or using, and to issue his certificate of approval thereof; and said commissioner of labor by himself, or his deputy, shall forthwith make said inspection. Upon receiving such application the commissioner of labor shall issue to the person

making the same, an acknowledgment that such certificate has been applied for, and thirty days after such acknowledgment, by said commissioner of labor, and pending the granting of such certificate, such acknowledgment shall have the same effect as such certificate, till the granting of such certificate by said commissioner of labor.

SEC. 6. Any employee of any person, firm, corporation or association shall notify his employer of any defect in, or failure to guard the machinery, appliances, ways, works and plants, with which or in about which he is working, when any such defect or failure to guard shall come to the knowledge of any said employee, and if said employer shall fail to remedy such defects then said employee may complain in writing to the commissioner of labor of any such alleged defects in or failure to guard the machinery appliances, ways, works and plants, or any alleged violation by such person, firm, corporation or association, of any of the provisions of this act, in the machinery and appliances and premises used by such person, firm, corporation or association, and with or about which such employee is working, and upon receiving such complaint, it shall be the duty of the commissioner of labor, by himself or his deputy, to forthwith make an inspection of the machinery and appliances complained of.

SEC. 7. Whenever upon any examination or reexamination of any factory, mill or workshop, store or building, or the machinery or appliances therein to which the provisions of this act are applicable, the property so examined and the machinery and appliances therein conform in the judgment of said commissioner of labor to the requirements of this act, he shall thereupon issue to the owner, lessee or operator of such factory, mill or workshop, or to the owner, lessee or occupant of any such storehouse, wareroom or store, a certificate to that effect, and such certificate shall be prima facie evidence as long as it continues in force, of compliance on the part of the person, firm, corporation, or association to whom it is issued, with the provisions of this act. Such certificate may be revoked by said commissioner of labor at any time upon written notice to the person, firm, corporation or association holding the same, whenever in his opinion after reexamination, conditions and circumstances have so changed as to justify the revocation thereof. A copy of said certificate shall be kept posted in a conspicuous place on every floor of all factories, mills, workshops, storehouses, warerooms or store to which the provisions of this act are applicable. If, in the judgment of said commissioner of labor, such factory, mill or workshop, or the machinery and appliances therein contained, or such storehouse, wareroom or store does not conform to the requirements of this act, he shall forthwith, personally or by mail, serve on the person, firm, corporation or association operating or using such machinery or appliances, or occupying such premises, a written statement of the requirements of said commissioner of labor, before he will issue a certificate as hereinbefore provided for; and upon said requirements being complied with, within a period of thirty days after said requirements have been served as aforesaid, the said commissioner of labor shall forthwith issue such certificate: but if the person, firm or corporation operating or using said machinery and appliances or occupying such premises shall consider the requirements of said commissioner of labor unreasonable and impracticable or unnecessarily expensive, he may within ten days after the requirements of said commissioner of labor have been served upon him, appeal therefrom or from any part thereof, to three arbitrators to whom shall be submitted the matter and things in dispute, and their findings shall be binding upon said applicant and upon the commissioner of labor. Such appeal shall be in writing, addressed to the commissioner of labor and shall set forth the objection to his requirements, or any part thereof, and shall mention the name of one person who will serve as the representative of said applicant calling for arbitration. Immediately upon the receipt of such notice of appeal, it shall be the duty of the commissioner of labor to appoint a competent person as arbitrator resident in the county from which such appeal comes, and to notify such person so selected, and also the party appealing, stating the cause of the arbitration, and the place, date and time of meeting. These two arbitrators shall select the third, and as soon thereafter as practicable, give a hearing on the matters of said appeal, and the findings of these arbitrators by a majority vote, shall be reported to the commissioner of labor, and to the applicant, and shall be binding upon each. The expense of such arbitration shall be borne by the party calling for the arbitration; and if said arbitrators sustain the requirements of said commissioner of labor or any part thereof, said applicant shall within thirty days, comply with the findings of said arbitrators, and thereupon the said commissioner of labor shall issue his certificate as hereinbefore provided (in section four of this act); but if said arbitrators shall sustain such appeal or any part thereof, the same shall be binding upon said commissioner of labor; and any such person, firm, corporation or association shall within thirty days, after the finding of the board of arbitrators, comply with the requirements of the commissioner of labor, as amended by said arbitrators, if so amended as herein provided for, and thereupon said commissioner of labor shall forthwith issue to any such person,

firm, corporation or association, his certificate as provided for in section four of this act: *Provided however*, That before any certificate shall be issued by said commissioner of labor as provided for in this act, the person, firm, corporation or association which has complied with the provisions of this act, shall pay to the treasurer of the State of Washington, an annual fee of ten dollars, and take his receipt therefor. Upon presentation of said receipt to said commissioner of labor, he shall forthwith issue said certificate as in this act provided. Said fee shall entitle the person, firm, corporation or association paying the same, to any and every inspection of any factory, mill, workshop, storehouse, wareroom, or store, and the machinery and appliances contained in any such premises, owned and operated by the party paying said fee, that may be necessary, for a period of one year subsequent to its payment; and all moneys collected for licenses and fines, under the provisions of this act, shall be paid into the State treasury and be converted into a special factory inspection fund, from which special fund shall be paid the deputy labor commissioners required to enforce the provisions of this act. Said deputy labor commissioners shall be paid from the special factory inspection fund, upon the presentation of vouchers properly signed by the labor commissioner in the same manner in which other employees of the State are paid.

SEC. 8. Any person, firm, corporation or association who violates or omits to comply with any of the foregoing requirements or provisions of this act, and such violation or omission shall be the proximate cause of any injury to any employee, shall be liable in damages to any employee who sustains injuries by reason thereof: *Provided*, The amount of damages which any one person may recover in an action for or on account of injuries received by reason of any alleged violation of any of the provisions of this act, is hereby expressly limited to the sum of seven thousand five hundred dollars.

SEC. 9. No action for the recovery of compensation for injury under this act shall be maintained unless notice of the time, place and cause of injury is given to the employer within six months, and the action is commenced within one year, from the occurrence of the accident causing the injury. The notice required by this section shall be in writing, signed by the person injured, or by some one in his behalf; but if from mental or physical incapacity it is impossible for the person injured to give the notice within the time provided in this section he may give the same within ninety (90) days after such incapacity is removed, and in case of his death without having given the notice because of mental or physical incapacity, his executor, or administrator may give such notice within thirty days after his appointment.

SEC. 10. Nothing in this act contained shall prevent any person from bringing an action under any other statute or act or at common law for any personal injuries received by him; and in that event the certificate provided for herein shall not be admitted in evidence in such suit or action.

SEC. 11. Any person, firm, corporation or association who violates or fails to comply with any of the provisions of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than twenty-five dollars nor more than one hundred dollars.

SEC. 12. A copy of this act, together with the name and address of the commissioner of labor, printed in a legible manner, shall be kept posted in a conspicuous place on each floor of every factory, mill, workshop, storehouse, wareroom or store, and at the office of every public and private work to which the provisions of this act are applicable, upon the same being supplied to the operators, owners, lessee, or occupants, of such places with sufficient copies thereof by the commissioner of labor.

Approved by the governor March 6, 1905.

CHAPTER 112.—*Payment of wages in scrip—Settlement.*

SECTION 1. Section one of "An act to provide for the payment of wages of labor in lawful money of the United States and to punish violations of the same," approved February 2, 1888, is hereby amended to read as follows: Section 1. It shall not be lawful for any corporation, person or firm engaged in manufacturing of any kind in this State, mining, railroading, constructing railroads, or any business or enterprise of whatsoever kind in this State, to issue, pay out or circulate for payment of wages of any labor, any order, check, memorandum, token or evidence of indebtedness, payable in whole or in part otherwise than in lawful money of the United States, unless the same is negotiable and redeemable at its face value, without discount, in cash or on demand, at the store or other place of business of such firm, person, or corporation when [where] the same is issued, and the person who, or company which may issue any such order, check, memorandum, token or other evidence of indebtedness shall upon presentation and demand redeem the same in lawful money of the United States. And when any laborer performing work or labor as above shall cease to work whether by

discharge or by voluntary withdrawal the wages due shall be forthwith paid either in cash or by order redeemable in cash at its face value on presentment at bank, store, commissary, or other place in the county where the labor was performed: *Provided*, Such order may be given payable in another county when the place of employment is more convenient of access to the employee.

Approved by the governor March 9, 1905.

CHAPTER 158.—*Bribery, etc., of employees.*

SECTION 1. Any agent, employee or factor of any firm, person, association or corporation, or any agent employee or officer of any corporation or municipality, who shall receive or accept any gift, bonus, gratuity, commission or thing of value from any person, firm, association or corporation with whom he shall contract for, or from whom he shall purchase any chattels, goods, wares, merchandise or material for his principal, employer, corporation or municipality, shall be deemed guilty of a misdemeanor.

Approved by the governor March 11, 1905.

CHAPTER 162.—*Employment of children—Certificates.*

(See Bulletin No. 62, page 279.)

WEST VIRGINIA.

ACTS OF 1905.

CHAPTER 46.—*Department of mines.*

SECTION 1. There is hereby created an executive department to be known as the "Department of Mines," which shall have for its purpose the execution and enforcement of all State laws pertaining to the inspection of mines, heretofore and hereafter enacted for the safety of persons employed within or at the mines within this State, and the said department of mines shall be in charge of an official to be known as the chief mine inspector, who shall have full charge of said department, and who shall superintend and direct the inspection of mines as herein provided and as provided by any other State law not in conflict with this act.

The chief mine inspector shall keep a record of all inspections made by himself and the district mine inspectors, which shall be a permanent record properly indexed. The records of the department of mines shall at all times be open to the inspection by any citizen of this State, and upon request of the governor of the State the chief mine inspector shall lay said records before said officer, also maps of mines furnished the chief mine inspector by the district mine inspectors. Any chief mine inspector who shall violate any of the provisions of this act shall, upon conviction thereof, be fined not less than twenty-five nor more than two hundred dollars, and may in the discretion of the court be imprisoned in the county jail not exceeding one year.

The chief mine inspector shall be a male citizen of West Virginia, and shall be a competent person, having had at least eight years' experience in the working, ventilation and drainage of coal mines in this State, and having a practical and scientific knowledge of all noxious and dangerous gases found in such mines; and to enable the said chief mine inspector to perform his duties he shall have the same authority to visit, enter and examine the mines as is conferred upon the district mine inspector, and he shall have the authority to call the assistance of any one of the district mine inspectors to any district in the State.

Within thirty days after this act becomes a law, and every four years thereafter, the governor of the State shall, with the consent of the senate, appoint a chief mine inspector whose term of office shall begin July 1, 1905, and shall be four years, or until his successor shall be duly appointed and qualified.

The salary of the chief mine inspector shall be eighteen hundred dollars per annum, and five hundred dollars for expenses, which shall be paid monthly out of the State treasury upon a requisition upon the State auditor, properly certified by the chief mine inspector.

SEC. 2. Within thirty days after this act becomes a law, and every four years thereafter, the governor of the State shall appoint one district mine inspector for each mining district within the State as hereinafter provided, whose term of office shall begin July 1, 1905, and shall be four years, or until his successor shall be duly appointed and qualified.

The salary of each district mine inspector shall be twelve hundred dollars per annum, and not more than five hundred dollars for expenses. Such salary and expenses shall be paid monthly out of the State treasury upon the approval of the chief mine inspector: *Provided*, That before payment of traveling expenses shall be made to the inspector he shall file an account of such expenses, verified by his affidavit, showing that they accrued in the discharge of his official duties. Every person so appointed district mine inspector must be a citizen of West Virginia, having a practical knowledge of mining and the proper ventilation and drainage of mines and a knowledge of the gases met with in coal mines, and must be a miner of at least six years' experience in coal mines, or having otherwise been engaged as an employee for six years within the mines of this State, and he shall not, while in office, be interested as owner, operator, agent, stockholder, superintendent or engineer of any coal mine, and he shall be of good moral character and temperate habits. An inspector of mines shall be removed from office by the chief mine inspector of this State for incompetency, neglect of duty, drunkenness, malfeasance and for other good causes.

Each of the district mine inspectors shall report in writing monthly to the chief mine inspector the number and condition of all mines inspected by him during each month, and shall deliver to the operator or operators of each mine inspected a certificate of inspection, and he shall visit each mine in his district at least once in every three months, or oftener if called upon in writing by twenty men engaged in any one mine, and make a personal examination of the interior of all mines, and outside of the mine where any danger may exist to the workmen, in their respective districts, and shall particularly examine into the condition of the mines as to ventilation, drainage and general safety, and shall make a record of all such examinations, and he shall see that all the provisions of the mining statutes are strictly carried out; and it shall be unlawful for any district mine inspector to appoint any deputy or other person to do and perform any work required of such inspector. Any mine inspector failing to comply with the requirements of this act shall be guilty of a misdemeanor; and upon conviction thereof shall be fined not less than one hundred dollars nor more than five hundred dollars, and be dismissed from office. The chief mine inspector and the district mine inspector shall, each, before entering upon the discharge of his duties, take the oath of office prescribed by the constitution and shall furnish bond in the sum of two thousand dollars, with security to be approved by the governor, conditioned upon the faithful discharge of his duty, a certificate of which oath and bond shall be filed in the office of the secretary of state. Vacancies in the office of chief mine inspector or district mine inspectors shall be filled by appointment for the unexpired term.

SEC. 3. Each district mine inspector shall, for each year ending with the thirtieth day of June, make a written report to the chief mine inspector of his proceedings, stating therein the number of mines in his district, the improvements made in and at the mines, the extent to which this act is obeyed or violated, and such other information in relation to mines and mining as he may deem of public interest, or as may be required of him by the chief mine inspector. He shall also suggest or recommend such legislation on the subject of mining as he may think necessary. Such report shall be filed with the chief mine inspector on or before the thirtieth day of September next succeeding the year for which it is made. The chief mine inspector shall annually make a full and complete written report of his proceedings as such chief mine inspector to the governor of the State for the year ending the thirtieth of June. Such report shall include the reports of the district mine inspectors, the number of visits and inspections made in the State by the district inspectors, the quantity of coal and coke produced in the State, the number of men employed, number of mines operated, ovens in and out of blast, improvements made, prosecutions, etc., and such other information in relation to the subject of mines, mining, inspection and needed legislation as he may deem of public interest and beneficial to the mining interests of the State. Such report shall be filed with the governor on or before the thirtieth day of December next succeeding the year for which it was made, and such report shall be printed upon the requisition of the governor, and in order that the report may be annually printed and distributed among the operators, miners and citizens of the State, the sum of fifteen hundred dollars shall annually be allowed out of the State treasury for this special purpose.

SEC. 4. The chief mine inspector, by and with the approval of the governor, shall divide the State into seven mining districts, in such a manner as to equalize as far as practicable the work of each district inspector.

Approved February 25, 1905.

CHAPTER 75.—*Employment of children.*

(See Bulletin 62, page 280.)

CHAPTER 76.—*Fire escapes on factories.*

SECTION 1. Every building or structure in this State of three or more stories in height, used as a factory or workshop, and in which ten or more persons are employed above the first story, or any hotel three or more stories in height, or any other building of more than three stories in height occupied or used as a tenement house, shall be provided with one or more suitable and substantial metallic fire escapes or ladders, reaching from the top of the first story to the cornice, and placed on the outside of the building. At each story above the first there shall be one or more metallic balconies substantially attached to the building and to the fire escape. Such fire escapes and balconies shall be in number, size, capacity, design and location as shall be necessary to furnish reasonable means of escape to all persons employed in the building in case of fire.

SEC. 2. It shall be the duty of the owner of every such building to equip the same as hereinbefore provided, within six months after the passage of this act. And thereafter no building as is described in the first section shall be used as a factory or workshop in which ten or more persons are employed above the first story, or a hotel three or more stories in height, until the same is so equipped. The word "owner" as used in this section shall include the person in whom is vested the legal title to the building.

SEC. 3. It shall be the duty of the mayor, the sergeant or chief of police, and the fire marshal of every city, town or village, annually to inspect every such building therein as described in the first section. They shall make inspection of any such building at any other time that they deem proper, and shall promptly make inspection of any such building whenever complaint thereof may be made to them in writing by any person. They shall serve written notice upon the owner, or his agent, of every such building not so provided with adequate fire escapes to provide the same within thirty days thereafter. It shall be the duty of the owner of such building to comply with such notice and to provide such adequate fire escapes within thirty days thereafter.

SEC. 4. Any such owner violating any of the provisions of this act shall be subject to a fine of not less than one hundred dollars (\$100), nor more than two hundred dollars, (\$200), which may be recovered before any justice or court having jurisdiction. Each week of failure to comply with the notice mentioned in section three shall be deemed a separate and distinct offense. And in addition, if any such owner shall fail for the space of sixty days after the receipt of such notice to provide adequate fire escapes, the building may be declared a nuisance in the manner prescribed in section twenty-eight of chapter forty-seven of the code of West Virginia. If any officer shall fail to perform any duty required of him by this act, or shall violate any of its provisions, he shall be fined not less than twenty-five dollars, (\$25), nor more than fifty dollars, (\$50), to be recovered before any justice or court having jurisdiction.

Approved February 25, 1905.

WISCONSIN.

ACTS OF 1905.

CHAPTER 129.—*Bribery, etc., of employees.*

SECTION 1. Whoever corruptly gives, offers or promises to an agent, employee or servant, any gift or gratuity whatever, with intent to influence his action in relation to his principal's, employer's or master's business; or an agent, employee or servant who corruptly requests or accepts a gift or gratuity or a promise to make a gift or to do an act beneficial to himself, under an agreement or with an understanding that he shall act in any particular manner in relation to his principal's, employer's or master's business; or an agent, employee or servant, who, being authorized to procure materials, supplies or other articles either by purchase or contract for his principal, employer or master, or to employ service or labor for his principal, employer or master, receives directly or indirectly, for himself or for another, a commission, discount or bonus from the person who makes such sale or contract, or furnishes such materials, supplies or other articles, or from a person who renders such service or labor; and any person who gives or offers such an agent, employee or servant such commission, discount or bonus, shall be punished by a fine of not less than ten dollars nor more than five hundred dollars, or by such fine and by imprisonment for not more than one year.

SEC. 2. No person shall be excused from attending, testifying or producing books, papers, contracts, agreements and documents before any court or in obedience to the subpoena of any court having jurisdiction of the misdemeanor on the ground or for the

reason that the testimony or evidence, documentary or otherwise, required of him may tend to criminate him or subject him to a penalty or forfeiture. But no person shall be liable to any suit or prosecution, civil or criminal, for or on account of any transaction, matter or thing concerning which he may testify or produce evidence, documentary or otherwise, before said court or in obedience to its subpoena or in any such case or proceeding: *Provided*, That no person so testifying or producing any such books, papers, contracts, agreements or documents shall be exempted from prosecution and punishment for perjury committed in so testifying.

Approved April 29, 1905.

CHAPTER 147.—*Inspection of factories—Blowers on emery wheels.*

SECTION 1. Section 1 of chapter 189 of the Laws of 1899 is hereby amended * * * so that said section, when amended, shall read as follows: Section 1. All persons, companies or corporations operating any factory or workshop where emery wheels or emery belts of any description are used for polishing, either solid emery, leather, leather covered, felt, canvas, linen, paper, cotton or wheels or belts rolled or coated with emery or corundum, or cotton wheels used as buff, shall, when deemed necessary, by the factory inspector, assistant factory inspector or any officer of the bureau of labor, provide such polishing wheels or belts with blowers or similar apparatus, which shall be placed over, beside or under such wheels or belts in such manner as to protect the person or persons using the same from the particles of the dust produced and caused thereby, and to carry away the dust arising from or thrown off by such wheels or belts while in operation, directly to the outside of the building or to some receptacle placed so as to receive and confine such dust: *Provided*, That grinding machines upon which water is used at the point of the grinding contact shall be exempt from the provisions of this act: *And provided further*, That this act shall not embrace nor apply to such wheels or belts as can not be so equipped without impairing the convenient or necessary use thereof.

Approved May 3, 1905.

CHAPTER 148.—*Assignments of wages.*

SECTION 1. There is hereby created and added to the Statutes of 1898 a new section to read as follows: Section 2313a. No assignment of the salary or wages of any married man, then or at the accruing thereof exempt by law from garnishment, shall be valid for any purpose unless such assignment shall be in writing signed by the wife, if she at the time be a member of his family, and unless her signature be witnessed by two disinterested witnesses: nor shall any such assignment be valid as to any such salary or wages to accrue more than two months after the date of the making of such assignment.

Approved May 3, 1905.

CHAPTER 226.—*Earnings of minors.*

(See Bulletin 62, page 281.)

CHAPTER 246.—*Employment of children—School attendance.*

(See Bulletin 62, page 284.)

CHAPTER 250.—*Protection of employees on buildings.*

SECTION 1. Section 2 of chapter 257 of the Laws of 1901, is hereby amended so as to read, when so amended, as follows: Section 2. Whenever complaint is made to the commissioner of labor, State factory inspector, any assistant factory inspector, or the chief officer charged with the enforcement of the building laws in the city where the work is being performed, that the scaffolding, slings, hangers, blocks, pulleys, stays, braces, ladders, irons or ropes of any swinging or stationary scaffolding used in the construction, alteration, repairing, cleaning or painting of buildings, are unsafe or liable to prove dangerous to the life or limb of a person, such commissioner of labor, State factory inspector, any assistant factory inspector or the officer charged with the enforcement of the building laws in such city, shall immediately cause an inspection to be made of such scaffolding, slings, hangers, blocks, pulleys, stays, braces, ladders, irons or other parts connected therewith. If, after examination such scaffolding, or any part thereof, is found to be dangerous to life or limb, the above person so authorized to inspect shall prohibit the use thereof, and require the same to be altered and reconstructed so as to avoid such danger. The commissioner of labor, State factory inspector, any assistant factory inspector, or the chief officer charged with the enforcement

the building laws in such city, making the examination, shall attach a certificate to the scaffolding, slings, hangers, irons, ropes, or other parts thereof or connected therewith, so examined by him, stating that he has made such examination and found it safe or unsafe as the case may be. If he declares it unsafe, he shall at once, in writing, notify the person responsible for its erection of the fact, and warn him against the use thereof. Such notice shall be served personally or by mail upon the person responsible for its erection, and by conspicuously affixing it to such scaffolding, slings, hangers, blocks, pulleys, stays, braces, ladders, irons or ropes, or any part thereof so declared to be unsafe. After such notice shall have been so served and affixed, the person responsible therefor shall immediately remove such scaffolding or other part so declared to be unsafe, and alter or strengthen it in such manner as to render it safe in the discretion of the officer who examined it or of his superiors. The commissioner of labor, State factory inspector, any assistant factory inspector and the chief officer charged with the enforcement of the building laws of such city, shall have free access at all reasonable hours, to any building or premises containing any scaffolding or part thereof. All swinging and stationary scaffolding shall be so constructed as to bear four times the maximum weight required to be dependent therefrom or placed thereon, when in use, and not more than four men shall be allowed on any swinging scaffolding at any one time.

SEC. 2. Section 3, chapter 257 of the Laws of 1901, is hereby amended, so as to read when so amended, as follows: Section 3. All contractors and owners, when constructing buildings in cities, where the plans and specifications require the floors to be arched between the beams thereof, or where the floors or filling in between the floors are of fireproof material or brick work, shall complete the flooring or filling in as the building progresses to not less than within three tiers of beams below that on which the iron work is being erected. If the plans and specifications of such buildings do not require filling in between the beams of floors with brick or fire-proof material, all contractors for carpenter work, in the course of construction, shall lay the under flooring thereof on each story as the building progresses, to not less than within two stories below the one to which such building has been erected. Where double floors are not to be used, such contractor shall keep planked over the floor two stories below the story where the work is being performed. If the floor beams are of iron or steel, the contractors for the iron and steel work of such buildings, in the course of construction, or the owners of such buildings, shall thoroughly plank over the entire tier of iron or steel beams on which the structural iron or steel work is being erected, except such spaces as may be reasonably required for the proper construction of such iron or steel work, and for the raising and lowering of materials to be used in the construction of such building, or such spaces as may be designated by the plans and specifications for stairways and elevator shafts. If elevating machines or hoisting apparatus are used within a building in the course of construction, for the purpose of lifting materials to be used in such construction, the contractors or owners shall cause the shafts or openings in each floor to be enclosed or fenced in on all sides by a barrier of at least eight feet in height. If a building in course of construction is five stories or more in height, no lumber or timber needed for such construction shall be hoisted or lifted on the outside of such building.

SEC. 3. A new section is hereby enacted to be known as section 3a of chapter 257 of the Laws of 1901, which shall read as follows: Section 3a. The commissioner of labor, State factory inspector, assistant factory inspector and the chief officer charged with the enforcement of the building laws in such city are hereby charged with the enforcement of the provisions of this act.

SEC. 4. Section 4 of chapter 257 of the Laws of 1901 is hereby amended so as to read, when so amended, as follows: Section 4. Any owner, contractor, subcontractor, foreman or other person having charge of any work subject to the provisions of this act, if found guilty of violation of any of the provisions thereof, shall be subject to a fine of not less than twenty-five dollars nor more than one hundred dollars, or imprisonment of not less than three months nor more than one year by any court having competent jurisdiction.

Approved May 25, 1905.

CHAPTER 296.—*Guards on corn huskers and shredders.*

SECTION 1. No person, firm, or corporation shall offer or expose for sale any machine to be operated by steam or other power, for the purpose of husking or shredding corn or corn stalks unless the said machine shall be provided with reasonable safety devices for the protection from accidents from the snapping rollers, and shall be so guarded that the person feeding said machine shall be compelled to stand at a reasonably safe distance from the snapping rollers.

SEC. 2. It shall be unlawful for any person, firm or corporation owning such machine to use, operate or permit to be used or operated any such machine while the safety devices or guards are detached.

SEC. 3. No such machine shall be sold or offered or exposed for sale unless the said machine shall have plainly marked upon it the name and location of the person, firm or corporation manufacturing the same.

SEC. 4. Any such person, firm or corporation who shall violate any of the provisions of this act shall be punished by a fine of not less than twenty dollars nor more than one hundred dollars for each offense.

SEC. 5. It shall be the duty of the commissioner of labor, the factory inspector, or any assistant factory inspector to enforce the provisions of this act: *Provided*, That nothing herein contained shall be construed to authorize such commissioner, inspector or assistant inspector to select or compel the adoption of any particular or special safety device, and that the question of the reasonable safety of any such device used by any manufacturer shall be subject to judicial determination.

Approved June 3, 1905.

CHAPTER 303.—*Inspection of factories—Failure to guard machinery—Assumption of risk.*

SECTION 1. A new section is hereby added to the Statutes of 1898, to be numbered and to read as follows:

Section 1636jj. In any action brought by an employee or his legal representative to recover for personal injuries, if it appear that the injury was caused by the negligent omission of his employer to guard or protect his machinery or appliances, or the premises or place where said employee was employed, in the manner required in the foregoing section, the fact that such employee continued in said employment with knowledge of such omission shall not operate as a defense.

Approved June 5, 1905.

CHAPTER 338.—*Inspection of factories—Assistant inspectors—Certificates.*

SECTION 1. Section 1 of chapter 152 of the Laws of 1899, is hereby amended so as to read as follows: Section 1. The commissioner of labor and industrial statistics shall have power to appoint ten suitable persons as assistant factory inspectors who shall perform their duties under his direction and who may be removed by him for cause.

SEC. 2. The factory inspector or assistant factory inspector having inspected any factory or mercantile establishment under his jurisdiction shall, at the time such inspection is made, issue a certificate or statement as to how the factory laws were complied with at the time of his inspection.

Approved June 10, 1905.

CHAPTER 348.—*Safety appliances on railroads—Telltals.*

SECTION 1. Whenever in the State of Wisconsin there shall be over, above or across any of the tracks of any railroad a bridge, crossing, viaduct, or other obstruction of a height of less than seven feet above the roof of any freight car used or hauled over said road, or wherever there shall be upon any railroad in the State of Wisconsin any bridge or other structure that shall have over or above any track of said road a transverse beam, girder, rod or other obstruction at a height of less than that above mentioned, it shall be the duty of the officers of such railroad, to erect and keep in repair at or near such bridge, crossing, viaduct, or other obstruction telltals made and placed as provided for in section 2 of this act.

SEC. 2. The telltals mentioned in section 1 of this act shall consist of a transverse rod, beam or timber placed across the track or tracks of said railroad at such a height and at such distance from the bridge or other obstruction as the railroad commissioner shall direct, and from said rod or beam shall be suspended straps, ropes or cords of such size and of such length and of such material as the railroad commissioner shall direct; the said straps, ropes or cords shall be attached to said transverse rod or beam at a distance not greater than nine (9) inches from each other for a space of eight feet directly over the track; said telltals shall be placed upon both sides of such bridge, viaduct or other obstruction.

SEC. 3. Any railroad company, lessee or other person or persons operating any railroad that shall refuse or neglect to erect the telltals required by this act for the space of sixty days after notice from the railroad commissioner requiring erection of such telltals shall be liable to a penalty of not less than fifty nor more than one hundred dollars, to be recovered in an action to be brought by the attorney-general in the name of the State of Wisconsin in the county wherein such bridge or obstruction may be situated, and for every twenty days' delay thereafter in erecting such tellta

such company or person shall be liable to the same penalty to be collected as above provided.

SEC. 4. Within sixty days from the passage of this act, every railroad or other company operating a line of railroad within the State shall file with the railroad commissioner at his office in Madison a verified statement showing the location of each bridge, crossing, viaduct, or other obstruction across any track or tracks of said road at a height of less than seven feet above the roof of any car used on or hauled over said road, and on or before the 30th day of June in each year it shall be the duty of such railroad or other company operating a line of railroad within this State to file with the railroad commissioner a like verified report together with a statement showing whether or not the provisions of this act have been fully complied with.

SEC. 5. An employee of a railroad corporation who is injured by or because of the existence of any bridge, viaduct or other obstruction over, above or across any of the tracks of said railroad at a height less than that provided in this act which has not been protected by the erection of trestles, as provided in this act, shall not be considered to have assumed the risk of such injury, although he continues in the employ of such corporation after the existence of such unguarded bridge, viaduct, or other obstruction has been brought to his knowledge.

Approved June 12, 1905.

CHAPTER 363.—*State civil service—Labor class.*

SECTION 2. After the passage of this act, appointments to, and promotions in the civil service of this State shall be made only according to merit and fitness, to be ascertained as far as practicable by examinations, which so far as practicable, shall be competitive. After the expiration of six months from the passage of this act, no person shall be appointed, transferred, removed, reinstated, promoted or reduced as an officer, clerk, employee or laborer in the civil service under the government of this State, in any manner or by any means, other than those prescribed in this act.

SEC. 11. The civil service commission shall require persons applying for admission to any examination provided for under this act, or under the rules and regulations of said commission, to file in its office a reasonable time prior to the proposed examination a formal application, in which the applicant shall state under oath or affirmation:

1. His full name, residence and post-office address.
2. His nationality, age, and the place and date of his birth.
3. His health and his physical capacity for public service.
4. His business and employments and residences for at least the five previous years.
5. Such other information as may reasonably be required touching the applicant's merit and fitness for the public service. * * * Applicants for positions in the recognized mechanical trades must have had practical experience for such periods as the commission may prescribe. * * *

SEC. 12. The offices, positions and employments in the classified service of the State shall be arranged by the civil service commission in five classes to be designated as the exempt class, the competitive class, the noncompetitive class, the labor class and legislative employees.

SEC. 21. The labor class shall include ordinary unskilled laborers. Vacancies in the labor class shall be filled by appointment from lists of applicants registered in their respective localities by the civil service commission according to rules and regulations determined by said commission except in cases of temporary employment. There may be separate lists of applicants for different kinds of labor or employments and the commission may establish separate labor lists for various localities, institutions and departments. Where the labor service of any institution or department extends to separate localities the commission may provide separate registration lists for each district or locality. The commission shall require an applicant for registration for the labor service before he can be registered to furnish such evidence or to pass such examination as they may deem proper with respect to his age, residence, physical condition, ability to labor, sobriety, industry, capacity and experience in the employment for which he applies.

SEC. 22. No subordinate or employee in the competitive class, noncompetitive class, or the labor class of the civil service of the State, who shall have been appointed under the provisions of this act or the rules made pursuant thereto, shall be removed, suspended for more than fifteen days, discharged, or reduced in pay or position, except for just cause, which shall not be religious or political. In all cases of removal the appointing officer shall, at the time of such action, furnish to the subordinate his reasons for the same and allow him a reasonable time in which to make an explanation. The reasons for removal and the answer thereto shall be filed in writing with the commission.

Approved June 14, 1905.

CUMULATIVE INDEX OF LABOR LAWS AND DECISIONS RELATING THERETO.

[This index covers the Tenth Special Report of the Commissioner of Labor, which is a compilation of the labor laws, both Federal and State, in force at the close of the year 1903: it also covers the labor laws enacted in 1904 and 1905 published in Bulletin Nos. 57 to 67 of this office. Many of the laws contained in the Tenth Special Report are briefly annotated. Decisions reproduced in the Bulletin since the publication of the Tenth Special Report are indexed under the appropriate headings, and are indicated by the letter "D" in parenthesis following the name of the State.]

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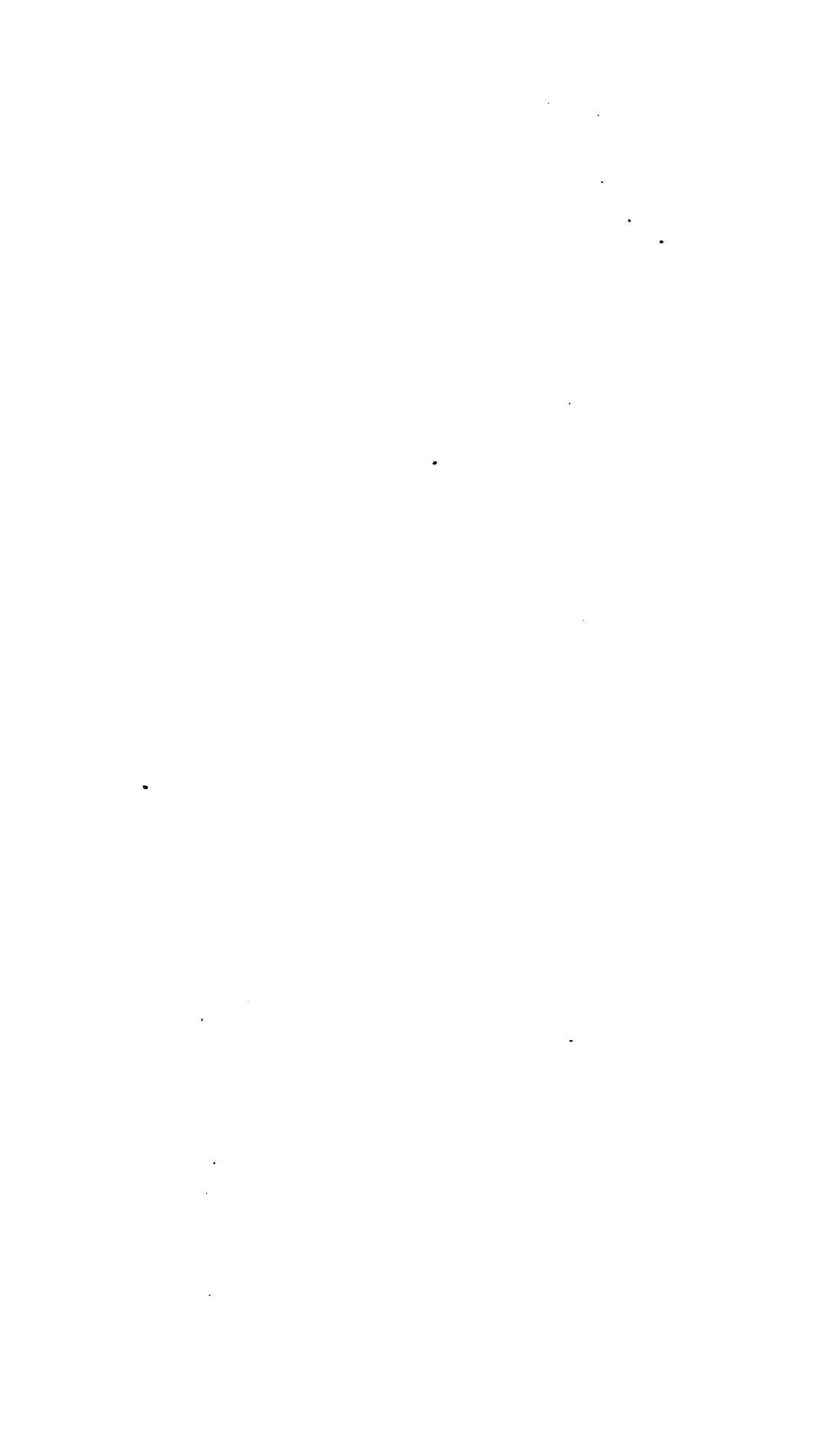
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